

Full Length Research Paper

With parental eye, factors that prevent to attend nature activities

Merve Ceylan

Department of Recreation, Faculty of Sport Science, Mugla Sitki Kocman University, Turkey.

Received 9 October, 2018; Accepted 18 November, 2018

This study was conducted in order to determine the difficulties and challenges parents and children who have attended /desire to attend nature activities experience in order to access these activities. The study included 50 parents and their children. Interview technique was used in the study. The percentage of the questions asked was calculated to determine the demographic characteristics of the participants. Some of the reasons for not participating in the nature activities, the distance to the natural areas, being away from the natural areas, the high cost concern, the fatigue due to the intensive working hours, the feeling of insecurity and not being able to reach the experts in the field have been shown. In addition, participants stated that the time they spent in nature with their children was not enough, accordingly, they did wrong to them and it pricked their conscience. As can be understood from the participant children's answers, tablet computer / phone usage is often seen as a compulsory choice. Children who have the desire to be in nature unfortunately feel the necessity to make electronic friends because of living conditions, and for this reason, they tend to use tablet computer/phone.

Key words: Outdoor activities, outdoor recreation, family participation.

INTRODUCTION

Unfortunately, many children have to grow up in the shadow of "apartment child" qualification today. Increasingly enlarging concreted "living spaces" have begun to break children's connection with soil and cause them to be desensitized to nature. Moreover, children who can not learn what seasons mean exactly due to global warming, grow up rapidly in apartment buildings, schools and indoor playgrounds.

Over 100 studies of outdoor experiences in the wilderness and natural areas show that natural outdoor environments produce positive physiological and

psychological responses in humans, including reduced stress and a general feeling of well-being. It is also a clear-cut finding that people, and especially young children who have not yet adapted to the man-made world, consistently prefer the natural landscape to built environments (Barrows, 1995).

Children have to spend time at the same place for long hours without moving due to many reasons such as intensively working parents, obligations imposed by education system, accessibility to technological tools and many other reasons, which lead to many physical and

E-mail: merveceylan@ymail.com.

Author(s) agree that this article remain permanently open access under the terms of the [Creative Commons Attribution License 4.0 International License](https://creativecommons.org/licenses/by/4.0/)

mental problems. In addition to these, the connection that children establish with technological tools also cut off their communication with their families and society, and cause them to live in a “virtual sociability”, and a display-oriented life style substitutes for many games like running, climbing and playing. Now, many children have become more interested in how many followers they have and how many likes they get on social media.

Children may spend less time outdoors because they spend more time indoors using technology. In Canada, children in Grades 6 to 12 spend an average of 7 h and 48 min per day in front of some form of screen. These findings are similar to a U.S. report stating that over the last 5 years, screen time has increased by 1 h and 17 min per day and reading has decreased by 5 min per day. Studies such as these have prompted a movement by more than 300 organizations in the United Kingdom to encourage children to exchange 30 min of screen time for 30 min of outdoor activity each day (Crawford et al., 2017).

Children have little free time. Their lives are structured, organized, and timed nearly to the minute. When they are home and could be playing outdoors, they are often tied to electronic umbilica. In a typical week, only 6% of children, ages nine to thirteen, play outside on their own. Studies by the National Sporting Goods Association, and American Sports Data, a research firm, show a dramatic decline in the past decade in such outdoor activities as swimming and fishing. In San Diego, California, according to a survey by nonprofit Aquatic Adventures, 90% of inner-city kids do not know how to swim; 34% have never been to the beach. In Holland, Michigan, some young people who come to the Outdoor Discovery Center for education based outings in the out-of-doors have collapsed into tears because they are afraid of the woods, and they cannot walk more than a few hundred yards before they are exhausted by the expenditure of physical energy (Charles et al. 2008).

The development of body and mind healthily depends on moving and exercising. Considering that every living learns its around through moving, touching and feeling since the first days of life; it is obvious how important moving is in order to sustain life healthily. Nevertheless, especially education system enforces children to swim in the theoretical knowledge sea. The United Nations Children's Rights Convention states that each child has the right to attend a holistic education that respects natural environment, and that one of the fundamental factors that will contribute to children's social emotional development in their future lives is also natural environment. Hartle (1994) found in the study investigating children's social interactions that preschoolers use better communication and perspective skills during outdoor games.

Unstructured play, indoors or outdoors, allows children to initiate activity rather than waiting for an adult to direct

them, while using problem-solving skills, their imagination, negotiating skills with peers, etc. (all of which is very beneficial to children's learning and development. The outdoors, especially diverse natural environments with varied plants and landscapes, invites children to act on their natural curiosity and, with the endless range of things to explore and question, provides a uniquely engaging environment for unstructured play. Among the added benefits, children's natural curiosity leads to scientific learning) not only specific details of nature, but scientific method (Charles et al., 2008).

The lives of children today are much more structured and supervised, with few opportunities for free play. Their physical boundaries have shrunk. A number of factors have led to this. Parents are afraid for their children's safety when they leave the house alone; many children are no longer free to roam their neighborhoods or even their own yards unless accompanied by adults. Some working families can't supervise their children after school, giving rise to latchkey children who stay indoors or attend supervised after-school activities. Furthermore, children's lives have become structured and scheduled by adults, who hold the mistaken belief that this sport or that lesson will make their children more successful as adults (White and Stoecklin, 1998).

A Hofstra University survey of 800 mothers with children between the ages of 3 and 12 found that: 85% of the mothers agreed that today's children play outdoors less often than children did just a few years ago; 70% of the mothers reported playing outdoors every day when they were young, compared with only 31% of their children. Also, 56% of mothers reported that, when they were children, they remained outdoors for three hours at a time or longer, compared with only 22% of their children (Clements, 2004).

Why are children spending less time outside? One study found that 94% of parents surveyed said that safety is their biggest concern when making decisions about whether to allow their children to engage in free play in the out-of-doors. Similarly, of 800 mothers surveyed by a Hofstra University researcher, 82% cited crime and safety concerns as one of the primary reasons they do not allow their children to play outdoors. But 85% of the mothers identified their child's television viewing and computer game playing as the number one reason, and 77% cited inadequate time to spend outdoors with their children (Clements, 2004).

While technological developments are advancing at high speed, especially recently an increase is observed in tendency of some parents to go towards the nature, with their children. Many parents feel guilty because they do not spare time to care enough with their children, accordingly, they attempt to go to natural areas on all occasions where they can spend time with their family, or they support their children to regularly attend a nature sport. Well, but, what are the restrictive reasons that

parents and children have experienced in attending nature events (whether recreational or sportive).

This study was conducted in order to determine what the restrictive reasons that parents and children that have attended /desire to attend nature activities experience in accessing to these activities and what they are thinking about the benefits of nature activities for their children's personal development. It is also aimed to examine what is the main reason for the preference of children between nature and electronic devices. In line with this purpose, the participants were asked to fill in a personal information form created by the researcher, to determine the demographic characteristics of the participants and to answer the following questions:

- (1) Can you access nature events easily and as often as you desire? If your answer is "no", what are the reasons?
 - (2) Do you think that nature events contribute to the development of your child? If your answer is "yes", then what are these developments?
- Participant children were asked the following question;
- (3) Do you prefer to be in nature or play with tablet computer / phone?

This research is important in terms of determining the factors that prevent participation in outdoor activities which contributes greatly to child development. It is thought that the results obtained from the research will contribute to the activities that will be done to increase the outdoor activities and participation in these activities.

MATERIALS AND METHODS

Research population consists of 50 parents who attended nature-activities (camping, trekking, seakayaking, sailing and kiteboarding) with their children (70 children aged between 8- 13) during the summer term of 2017- 2018 academic year. Since participant children aged under 18, official consents of their parents were obtained to initiate the research. Interview technique was used in the study, it is a qualitative data collection method and its basic method is verbal communication and dialogues were recorded. In the interview method, the important thing in reporting of data is not the numbers but what the participants says (Creswell, 2007). Therefore it was paid attention to keep the colloquial expressions as they are while doing analysis and reporting. Participant parents were asked to complete their personal information form prior to the activity. And then questions were asked by the researcher and the sound recording of dialogues was made. While the conversation records are reported, the names of the participants were changed. In order to determine the demographic characteristics of the participants, statistical analysis of data IBM SPSS 20.0 (Statistical package for social sciences) was used and the percentage of the questions were calculated.

RESULTS AND DISCUSSION

Thirty six percent of the participants were female and

64% of the participants were male. When the distribution of the participants according to age groups is examined, it was seen that 32% and 36- 41 age group constitute the biggest ratio (Table 1). The educational level of participants were 44% of the participants master, 36% university graduates, 12% doctorate and 8% high school graduates. It was seen that 32% of the participants had the largest share with 4501- 6000 TL and 28% with 6001- 7500 TL revenue. Sixty eight percent of the parents had one child, 24% had 2 children and 8% had 3 children. Forty four percent of the parents spend 8-11 h a week; 28%, 4 to 7 h; 16%, 1-3 h; 8%, 12-15 h; and 4% spend more than 16 h with their children in nature. When the participants residences' distances to the nearest natural areas were examined, it was seen that a large part (44%) of the participants could access to the natural area after a distance of 17 km and above. After the participants answered the questions aiming to determine their demographic characteristics; some of their answers to the question of "can you access to nature events easily and as often as you desire? If your answer is "no", what are the reasons?" are as follows:

Metin is 42 years old, and father of two children: Unfortunately it is not easy at all. There are many reasons for this. First of all, since we reside in the city center, the distance from our residence to the nearest forest is about 35-40 km. I have to cover this distance with my own car but the gasoline prices are very high. Even if I ignore it, traffic is one of the most serious problems. In addition to these, the fatigue that I experience due to the intensive working often persuades me to stay at home.

Leyla is 32 years old, and mother of one child: There is no natural area nearby, for this reason we have to attend to nature events organized by professionals on weekends. We are very satisfied with these events. but because we have to change cities, we incur serious costs both in transportation and accommodation.

Tugba is 45 years old, and mother of two children: It is very difficult to access to the nature from the city. When we desire to attend an event, we necessarily need to consult an expert. But it is very difficult to find the right people. Everyone consider themselves specialists even if they do not have sufficient knowledge. That's why we have significant problems, so we can not trust people. I never resign my child to someone whom I do not trust.

Ahmet is 49 years old, and father of three children: I wish we could be in nature every day ... we leave the residence at 6:00 AM in the morning, together with my children. They arrive at home at 05:45 PM and I arrive at 7:30 PM. For this reason, we can not go out on weekdays. What we can do utmost is to have a walk after meal, within the site where we reside. This is also not possible to happen every day, we can be in nature only on weekends for a limited time, and we are trying to be

Table 1. Descriptive analysis table of the study group.

Variable	Group	F	%
Gender	Female	32	64
	Male	18	36
Age	30-35	8	16
	36-41	16	32
	42-47	14	28
	48-53	6	12
	54-59	6	12
Education	High School	4	8
	University	18	36
	Master	22	44
	Doctorate	6	12
Income	1500-3000 ₺	4	8
	3001- 4500 ₺	8	16
	4501- 6000 ₺	16	32
	6001- 7500 ₺	14	28
	7501 ₺- more	8	16
Number of Children	1	34	68
	2	12	24
	3	4	8
Time in Nature (in a week)	1-3 h	8	16
	4-7 h	14	28
	8-11 h	22	44
	12-15 h	4	8
	16 h - more	2	4
Distances to the nearest natural areas	0-5 km	2	4
	6-10 km	6	12
	11-15 km	10	20
	16-20 km	10	20
	21 km- more	22	44
Total		50	100

contented with that. So, I am very sorry for my children. Because I grew up in the street and in nature. But they have been stuck with in concrete buildings, which arouse a feeling of doing wrong for them inside me, and pricks my conscience...

Hatice is 39 years old, and mother of one child: Considering the conditions of the society we live in, is it possible to spend time in nature as we desire? We, as parents, need to work hard to ensure a good future for our children, and take care of them as well. Every day we receive news of kidnapped, murdered, harassed, and

raped children. We can not trust anyone ... my child has to wait for my spare time to be in nature. This pricks my conscience. We work weekdays, we are busy with housework on weekends, and so, we can only go to the nearest forest in limited time. In doing so, we are definitely trying to go with a few people and feel safe.

Some of participants' answers to the question of "Do you think that nature events contribute to the development of your child? If your answer is "yes", then what are these developments? are as follows:

Hakan is 45 years old, and father of two children: ... My children who are permanently busy with tablet at home, who avoid having a brief chat with us, definitely aren't the same with children running around, climbing trees, leaping and jumping in nature... They physically turn into more dynamic children. They start to talk, and and start asking for everything they see. They become more curious...

Orkun is 51 years old, and father of two children: on all occasions, I try to take every opportunity for my children to attend another nature event. They learn different things in every event, and they start looking around more carefully... I observe that when we are in nature, our family ties get stronger.

Atilla is 47 years old, and father of one child: First of all, being in nature increases human endurance. While people want to cover even a short distance in the city by a car, they untiringly walk everywhere in nature and never complain about that ... Since we act as a group, people in the group become more understanding, patient and sharing to others. Moreover, since we take the opportunity to observe the lives of the animals we meet in nature, we behave them more attentively and dotingly.

The participant children's answers to the question of "Do you prefer to be in nature or play with tablet computer / phone?" are as follows:

Anil is 47 years old: I love being in nature, but I can not waive my phone as well. Because, on the time remained from school and homework, the only thing I can play and enjoy is my phone. ...

Elif is 9 years old: I wish our classes were in the forest. Thus, we would be with plants and animals. ... On weekends, we would not try to go anywhere in a traffic jam.

Mert is 11 years old: I love being in nature. When I go to the forest I can run and play after my own heart. Nobody is obliged to say to me that don't run, don't disturb neighbors. So I can have more fun.

Derin is 9 years old: ... When my mother went to elementary school, there was a big forestland in the school garden, and when spring came, they always had their classes in the forest, not in class. There are very few trees in the garden of the school that I attend, the places where we play are always concrete. When I look in the window, I see traffic... I think this is injustice, I want to have a class in the forest.

Tuğba is 11 years old: I love to spend time with my tablet computer, because when I come home it is my only friend. However when I am in the nature, I think I neglect it a little (laughs). ... I love climbing trees and watching bugs on the ground.

As can be understood from the participant children's answers, tablet computer / phone usage is often seen as a compulsory choice. Children who have the desire to be

in nature unfortunately feel the necessity of making electronic friends because of living conditions, and for this reason, they tend to use tablet computer/phone. When the study results are examined, it is seen that 64% of the participants are fathers. This situation is considered due to the fact that mothers have high responsibilities related to home life in addition to that related to their business life. When the age groups of the parents are reviewed, it is seen that the highest participation was in the age range of 36-41 years, and regarding their education levels; 44% got a master's degree, and 36% are university graduate. This situation points out that the level of education of families who direct their children to nature is quite high. It is seen that the distances from participants' residences to the nearest natural areas are 21 km and above. In two recent nationwide surveys in Holland, people who lived within one to three kilometers of green space reported significantly better health than those without such access, after researchers controlled for socioeconomic status, age, and other factors (Vries et al., 2003; Maas et al., 2006).

When the income levels of the participants are examined, it is seen that the largest group with 32% ratio has a income level between 45001- 6000 TL. According to the results of "poverty and hunger limit" related survey conducted by Confederation of Turkish Trade Unions in June 2018, the poverty line for a family of four is 5.584,20 TL. Taking into account this conclusion, it is considered that participants can not adequately direct their children to nature events due to their financial impossibility and they think nature events are expensive.

The majority of the participants answered the question of "Can you access to nature events easily and as often as you desire?" as "no", and for that they gave the reasons such as the longness of the distance from their residence to natural areas, high cost concern, fatigue resulting from intensive working periods, feeling of insecurity, and fail to access to the specialists in their field. As a necessity of today's working life, urbanization has increased and led to traffic problems. The long periods of time spent during traffic cause stress and fatigue for an individual, which leads individuals to do something without using vehicle. But, unfortunately, many city centers today are far out of walking distance to natural areas. High fuel prices, however, also increase transportation costs. Briefly, urban life can be considered as the greatest factor that keep individuals out of natural living environments. As a result of the literature review, not enough study of the factors affecting attendance to nature events has been found. However, it has been shown in some international researches that the reasons why children's dynamism and outdoor games have decreased are increased traffic, loss of playgrounds and reduced social contact with neighbors (Holt et al., 2013; Karsten and Vliet, 2016; Mitchell et al., 2007). The

increase in the number of closed areas, as well as increasingly concretion of green areas during the process of urbanization, are important factors in decreasing of children's dynamism.

The extreme increase in environmental factors-oriented parental concerns lead to restrictions on children's physical activities and restriction of their freedom to wander and play outside house, school or other areas under surveillance (Baker and Palmer, 2006). Harassment and rape cases, especially encountered recently, cause families to take some precautions and try to keep children in their control areas. It was reported in a study conducted at the University of Lancaster in 2004 that children in the age group of ten-eleven year olds were under the strict parental surveillance and were unable to play freely since their games were cut off in a slightest danger sign (Pooley et al., 2005). This, unfortunately, does not allow children to even live their everyday life adventures by means of which they use the world as a means of learning, and which provides their physical, mental and social development.

Previously reported barriers to outdoor play have included safety concerns, a lack of time, and greater pressure on academic study, as well as access to digital entertainment in the home. However, there is little support in the literature for an association between safety perceptions and children's physical activity (McFarland and Gull Laird, 2018). Another answer given by the participants is to "fail to access to the specialists in their field". Due importance is not given to open area recreation leadership in our country yet. Open area recreation leaders are those who should have been specialized in many issues such as geographical features of the region, meteorological information, interpersonal communication, etc. However, both the inadequacy of provided trainings, and under estimating nature's power can cause a group to face with many problems when they go out for nature, which leads to a decrease in confidence to open area recreation leaders. The participants stated that the time they spent in nature with their children was not enough, accordingly, they did wrong to them and it pricked their conscience. Individuals who were in childhood in the 80s and 90s are often referred to as the last generation who spent their childhood in streets, parks and natural areas. It should be considered as an extremely normal situation for parents, who often spent their childhood in natural environments, to feel discomfort in the case that their children can not benefit from these opportunities.

The participants gave positive answer to the question of "Do you think that nature events contribute to the development of your child? If your answer is "yes", then what are these developments?" in general.

They stated that their children became physically stronger and more durable, that a positive development was provided in family relations, that communication and

sharing with other individuals increased, that they became more sensitive, attentive and respectful to nature, by means of attendance to nature events.

Mental disorders and mood disorders are more prevalent in urban areas, partly due to decrease in access to nature. Outdoor environments are also useful to improve children's socio-emotional skills, in addition to helping their psychomotor and cognitive development. Rivkin (2000) emphasized that children have opportunity to recognize different people or animals, and they have the chance of having all kinds of experiences with their peers and comparing their behaviors with each other through these experiences while playing outside (Creasey et al., 1998). Moreover, they can improve their communication and empathy skills by interacting with their peers during outdoor activities (Hartle, 1994; Richardson, 2007).

It was reported in the consequence of the survey in which the children attended outdoor activities were observed by their families that there was a decrease in the attention deficit symptoms of children attending activities in a greener environment than normal (Taylor et al., 1998).

Outdoor activities provide meaningful experiences to children, which lead them to be interested in natural environments, wild animals, plant species and outdoor recreation activities (Chawla and Derr, 2012). When the children's answers to the question of "Do you prefer to be in nature or play with tablet computer / phone?" were examined, it was seen that they preferred to be in nature, and compulsorily tended towards electronic devices.

Baker and Palmer (2006) stated that technology has developed rapidly than our biology's, that increasing conflict between technology-driven culture and our biological heritage has damaged to children's abilities of thinking, learning and behaving properly, and that next generation wouldn't be intelligent and balanced as it used to be as long as nothing is done to solve this problem. He also stated that the problems such as increasingly focusing, self restriction and considering other people's needs and interests are confronted in children. Children involved in a complex contemporary culture need more parental wisdom, guidance and support than ever before.

Conclusion

Growing interest of outdoor activities also suggests the need to conceptually expand areas of study for future research. For example, national impact of the nature deficit are needed, combining such measures as potential health savings, better school performance, financial impact of expanded nature recreation for children and young people. An urban region tackling such a task might then set an example for other regions by producing an annual report card on the total benefits and deficits of the

human-nature connection within the community.

While it is critical to understand children's views and experiences regarding outdoor play spaces, parents' perceptions are also important, as they have been shown to be a major determinant of children's outdoor behaviors. Parent perceptions regarding how safe an outdoor area is, for example, have been linked to the amount of time children spend outside and parental perceptions are a primary constraint to children's use of the outdoors. In a range of contexts, parents' attitudes have a strong influence on children's activities and attitude development. Parents who prefer natural settings for their children's outdoor play have young children who also prefer natural settings. Additionally, parent preferences based on setting type were related to their children's affinity toward nature. Parents who preferred forests had children with significantly stronger levels of affinity toward nature than parents who preferred the other setting types of water, fields, and parks (Ernst, 2017 Exploring Young Children's and Parents' Preferences for Outdoor Play Settings and Affinity toward Nature, 2017, *International Journal of Early Childhood Environmental Education*, 5(2): p. 30).

Parents feel nervous about children's outdoor play so they try to balance it by providing children these opportunities to avoid hovering or helicopter parenting. This struggle between wanting their children to be independent and wanting to protect their children supports findings that parents feel a "socially assigned responsibility" to protect their children (McFarland and Gull Laird, 2018).

Research finds that parents' safety concerns for their children act as barriers which prevent their children's participation in particular sports and physical activities (Boufous et al., 2004). Other studies have found that parental beliefs about neighbourhood safety impact children's opportunities to engage in independent physical activities (Soori and Bhopal, 2002; Weir et al., 2006). Another study based in Australia found that, although parents had positive memories of unsupervised and unstructured play outdoors in their own childhoods, they were not likely to provide such experiences for their own children (Gull-Laird et al., 2014).

Tandon et al. (2016) states that parental attitudes about playing outside, family socioeconomic status, potential injuries, not providing appropriate clothing for playing outdoors and parental perceptions of neighbourhood safety have been found to be associated with children's opportunities for physical activity. Despite ever-increasing working hours and declining natural living environments, there is obviously a need for natural living environment. It has become a nonignorable necessity as a society to undertake initiatives to protect and increase green spaces. It is necessary to add more "nature" theme to everyday life by making arrangements such as roof gardens, urban parks, urban farming areas, gardens

inside and around buildings, including municipalities and schools. The purpose herein is more than introducing nature in urban areas. People should be able to interact with these elements by using their senses more, in order to experience the physical and psychological benefits of nature and to shift the collective baseline toward a better understanding and appreciation of the natural world. The cities, designed as meshed with nature will have a reparative effect both psychologically and sociologically, and making access to nature easier will also allow younger generation to grow up as more sensitive towards nature and having environmental consciousness. When the results of the research are evaluated, it is possible to make the following recommendations:

- (1) The training of outdoor recreation experts in the relevant departments of universities is an important requirement.
- (2) The link between schools and natural areas should be established and children should be offered an opportunity to grow in nature from an early age.
- (3) Schools and municipalities should plan outdoor activities for families and their children.
- (4) Natural areas should be planned by the municipalities at points close to the living areas.
- (5) Outdoor activities in schools should be part of the lesson plan
- (6) Natural habitats and outdoor recreation areas should become more secure for families.
- (7) While altering perceptions of parents about be in nature regarding difficulty may be a wise investment in efforts to increase time young children spend in nature.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

REFERENCES

- Baker DA, Palmer RJ (2006). Examining the Effects of Perceptions of Community and Recreation Participation on Quality of Life. *Social Indicators Research* 75:395-418
- Barrows A (1995). *The Ecopsychology of Child Development*. Ecopsychology, Roszak, Gomes and Kanner (eds). San Francisco: Sierra Club Books.
- Boufous S, Finch C, Bauman A (2004). Parental safety concerns: A barrier to sport and physical activity in children? *Australian and New Zealand Journal of Public Health* 28(5):482-486.
- Charles C, Louv R, Bodner L, Guns B (2008). *Children and Nature 2008: A Report on the Movement to Reconnect Children to the Natural World* is a joint project of the Children and Nature Network and ecoAmerica. Santa Fe, Algonquin Books of Chapel Hill.
- Chawla L, Derr V (2012). *The Development of Conservation Behaviors in Childhood and Youth* The Oxford Handbook of Environmental and Conservation Psychology. DOI: 10.1093/oxfordhb/9780199733026.013.0028
- Clements R (2004). An Investigation of the Status Of Outdoor Play. *Contemporary Issues in Early Childhood* 5:68-80.

- Crawford MD, Maxine R, Holder B, O'Connor P (2017). Using Mobile Technology to Engage Children with Nature Environment and Behavior 49(9):959-984.
- Creasey GL, Jarvis PA, Berk L, (1998). Play and social competence. Multiple perspectives on play in early childhood education. Albany, NY: State University of New York Press pp. 116-143.
- Creswell JW (2007). Qualitative Inquiry and Research Design- Choosing among five approaches (2nd ed.). California: Sage Publications.
- Ernst J (2017). Exploring Young Children's and Parents' Preferences for Outdoor Play Settings and Affinity toward Nature. International Journal of Early Childhood Environmental Education 5(2):30.
- Gull-Laird S, McFarland-Piazza L, Allen S (2014). Young Children's Opportunities For Unstructured Environmental Exploration Of Nature: Links to Adults' Experiences In Childhood. International Journal of Early Childhood Environmental Education 2(1):58-73.
- Hartle L (1994). Outdoor play: A Window on Socialcognitive Development. Dimensions of Early Childhood 23:27-30.
- Holt NL, Lee H, Millar CA, Spence JC (2013). Eyes on where children play': a retrospective study of active free play. Faculty of Physical Education and Recreation, University of Alberta, Edmonton, Alberta, Canada.
- Karsten L, Vliet W (2016). Increasing Children's Freedom of Movement: Introduction. Children, Youth and Environments 16(1).
- Maas J, Verheij RA, Groenewegen PP, Vries S, Spreeuwenberg P (2006). Green space, urbanity, and health: how strong is the relation? Journal Epidemiology Community Health 60:587-592. Doi: 10.1136/jech.2005.043125
- McFarland L, Gull Laird S (2018). Parents' and Early Childhood Educators' Attitudes and Practices in Relation to Children's Outdoor Risky Play. Early Childhood Education Journal 46:159-168.
- Mitchell H, Kearns RA, Collins, DCA (2007). Nuances Of Neighborhood: Children's Perceptions Of The Space Between Home And School In Auckland, New Zealand. Geoforum 38:614-627.
- Pooley CG, Turnbull J, Adams M (2005). European Cities, Youth And The Public Sphere In The Twentieth Century. Siegfried, D. and Schildt, A. (eds.). Aldershot: Ashgate pp. 90-109; 20 p. (Historical Urban Studies)
- Richardson GR (2007). The Grate Outdoors. Education Review 20(1):92-99.
- Rivkin MS (2000). Outdoor Experiences for Young Children. Washington, DC: National Association for the Education of Young Children.
- Soori H, Bhopal RS (2002). Parental Permission For Children's Independent Outdoor Activities: Implications For Injury Prevention. European Journal of Public Health 12:104-109.
- Tandon PS, Saelens BE, Copeland KA (2016). A Comparison Of Parent And Childcare Provider's Attitudes And Perceptions About Preschoolers' Physical Activity and Outdoor Time. Child: Care, Health And Development 43(5):679-686.
- Taylor AF, Wiley A, Kuo FE, Sullivan WC (1998). Growing Up in the Inner City: Green Spaces as Places to Grow. Environment and Behavior 30(1):3-27.
- Vries Alterra S, Verheij RA, Groenewegen PP, Spreeuwenberg P (2003). Natural Environments Healthy Environments? An Exploratory Analysis Of The Relationship Between Greenspace and Health, Environment and Planning 35:1717-1731.
- Weir LA, Etelson D, Brand DA (2006). Parents' Perceptions Of Neighbourhood Safety and Children's Physical Activity. Preventative Medicine 43:212-217.
- White R, Stoecklin V (1998). Children's Outdoor Play and Learning Environments: Returning to Nature. Early Childhood News magazine. March/April 1998
<https://www.whitehutchinson.com/children/articles/outdoor.shtm>