# PARENTAL PERSPECTIVE ON PRESCHOOLERS' LEISURE ACTIVITIES

## Daciana LUPU, Andreea Ramona LAURENŢIU Transilvania University of Brasov dacianalupu@yahoo.com

Abstract: Parents are responsible for children's leisure activities. Preschoolers spend most of their free time, playing different games inside their homes or in parks or in some other special equipped places. The research aims the next 2 hypothesis: (1) Parents involve their children in few sports, cultural or artistic leisure activities; (2) Parents consider that there is a gender criterion when choosing leisure activities, so that boys prefer sports while girls rather prefer to involve in artistic or cultural activities. The research method used is questionnaire based survey. The questionnaire investigated 162 parent's opinion about how their preschoolers spend their free/spare time. The obtained results (according to parents opinion) agree with top choices activities that take place outdoors in parks or other sites designed for children leisure activities. The basic activities consist of games, but it is necessary for parents to participate at a parenting program where they should be informed about the importance of both sports and cultural or artistic activities in children's life.

**Keywords:** *leisure activities, preschool children, parents, outdoor activities, indoor activities* 

### 1. Introduction

Family has an important role in non-formal education - in stimulating the development and assuring the wellbeing of the child through different types of learning experiences. The changes and challenges in the post-modern world demands more than before education for spare/free time – one of the so called "new educations" (mentioned in UNESCO programs, also). The parents decide and are responsible for choosing appropriate ways for children to spend spare time or to spend this time together with the children. Especially for the preschool period of the child the influence of spare time activities is significant for further development. Being dedicated in large part to play and games the parents have to choose from a great deal of possibilities - whether to playing at home or in parks or in special places with children's play equipment or other types of locations with special materials and devices.

## 2. Literature Review

There are different perspectives of defining leisure: the activity, the game as a recreation (Raymore, Godbey, Crawford, 1994), that state of mind, as the quality of

life. The concept of spare/free time describes functions like: rest, fun, personality development, education (Veal, 1992). Compared to a generation ago, children spend less time playing outdoors, participating in fewer outdoor activities. Tucker, Irwin, Gilliland, He, Larsen, and Hess (2009) found that on average, children are involved in about 160 minutes of physical activity/day. Tucker (2008) found that nearly half of preschoolers do not engage in 60 minutes of physical activity per day. The level of physical activity in preschool children is less than that recommended (Cardon, van Cauwenbergh, Labarque, Haerens of Bourdeaudhuij, 2008). Sandercock, Angus, and Barton (2010) found that there are major differences in physical activity levels of children in urban and rural areas.

Singer, Singer, D'Agostino, and DeLong (2009) reported that the most common activity performed by children is watching TV, followed by outdoor playing (Wen, Kite, Merom, Rissel, 2009, Anderson, Economics, Must, 2008, Hofferth, Sandberg, 2001; Taylor, Murdoch Books, Gerrard, William, Taylor, 2009; Sisson, Broyles, Baker, Katzmarzyk, 2010). Most of the activities children are sedentary, indoor activities in a higher proportion than the outdoor (Gubbels, Kremers, van Kann, Stafleu, Candel, Dagnelie et al., 2011; Taylor, Murdoch, Carter, Gerrard, William, Taylor, 2009). Despite the fact that physical activities are designed to reduce negative emotions (anger, fatigue/tiredness, sadness), improve attention (Bowler, Buyung -Ali, Knight, Pullin, 2010) and improve physical and mental health. Children who practice sports are more positive in what concerns school, home, social life (Wood, Hine, Barton, 2011). The main obstacles to physical activity include parental fears about safety both in personal and community level, time constraints, financial constraints, safety regulations on environmental design (Dwyer, Higgs, Hardy, Baur, 2008), road safety (Timperio, Crawford, Telford, Salmon, 2004; Carver Timperio, Crawford, 2008; Handy, Cao, Mokhtarian, 2008), delinquency or strangers (Wridt, 2004). Physical activity can be encouraged by: parental models (Jago, Thompson, Page, Brockman, Cartwright, Fox, 2009), the models offered by teachers, access to safe playgrounds and playing opportunities, friends from the neighborhood (Dwyer, Higgs Hardy, Baur, 2008), social cohesion in the neighborhood (Aarts, Wendel - Vos, van Oers, van de Goor, Schuit, 2010).

Free/spare time varies from child to child, depending on age, gender, personality, family. Male children are more active than female children (Dyment, 2005; Tucker, 2008; Hinkley, Crawford, Salmon, Okely, Hesketh, 2008; Nilsson, Andersen, Ommundsen, Froberg, Sardinha, Piehl - Aulin, 2009). Also, independent mobility and physical activity were significantly higher in/at boys (Page, Cooper, Griew, Davis, Hillsdon, 2009). Boys prefer: outdoor activities and green spaces (Wheeler, Cooper, Page, Jago, 2010), sports (football, basketball, cycling), video games, watching television, and girls prefer: cycling, watching TV, dancing, reading (Fjørtoft Kristoffersen, Sage, 2010). Fjørtoft Kristoffersen and Sage (2010) observed that areas with asphalt areas facilitate running sports and football game. They are used more by boys. Girls choose forest areas for physical activity. All the girls are exhibiting risk-taking behaviours; they tend to show greater fear to engage in new

activities (Little, 2010). Girls are more likely to engage with the family, while boys are more likely to do business with friends outdoor. Parents have an important role in the formation/ development of pro-active behaviours; they are the guys who buy more sports equipment, tools and vehicles while girls buy more dolls, cartoon characters, furniture and other manipulative toys (Pomerleau, Bolduc, Malcuit, Cossette, 1990).

Neighborhood design should be performed in order to stimulate physical activity, through the existence of parks, playgrounds (Bell, Wilson, Liu, 2008), a kind of play equipment pieces, different forms of vegetation and/or height (Cardon, van Cauwenbergh, Labarque, Haerens of Bourdeaudhuij, 2008), the neighbourhood and recreational opportunities (Tucker, Irwin, Gilliland HE Larsen, Hess, 2009). Heitzler, Martin, Duke, and Huhman (2006) estimated that the messages and the interventions that aim to increase children's participation in organized physical activity during leisure must continue to focus on promoting the benefits associated with being active. It is very important the support of parents and ensuring safe and enjoyable opportunities for their children to be active.

#### 3. Purpose of study

Starting from this premise, the research objectives focused on identifying those sports and cultural-artistic activities of all leisure time activities for parents and preschoolers, namely the analysis of leisure activities in children's gender. We started from the following assumptions: 1. sporting and cultural-artistic ones succeed as a favourite leisure activities spent in playgrounds or parks for children 2. there is a gender perspective in choosing variants leisure, so boys prefer sports activities and girls cultural-artistic activities.

## 4. Methods

As research method, we used survey based on a questionnaire. The questionnaire investigated the possibilities and ways of leisure by preschool children on dimensions: information about the child's life, information on opportunities for leisure, free/spare time information about the child and socio-demographic data. The questionnaire was developed and validated specifically for this research (Cronbach Alpha = 0.893). Lot of research included 162 parents of preschoolers. Of these, 79.6% (129 subjects) were female, while the remaining 20.4% (33 subjects) male. In terms of marital status: 148 parents (91.4%) said they are married, 7 parents are unmarried (4.3%), 5 parents (3.1%) are divorced and two parents (1.2%) are widowed.

Most parents: 41.4% belong to the small group of children (3- 4 years), 33.3% of children in the middle group (4- 5 years) the remainder, 25.4% were parents of children in the high group (5-6 years). Most parents, 58% have one child, 38.3% have two, 3.1% have three children and only 0.6% has more than three children. Regarding income, 59 parents (36.4%) said that the family's monthly income is around 400 Euro, and 42 parents (25.9%) that the income is over 400 Euro, 31 parents (19.1%) have an

income of 350 Euro, 4.9% (8 subjects) claim to have 200 or 300 Euro, the remaining six parents (3.7%) claimed to have an income of 250 Euro.

#### 5. Findings and results

Hypothesis 1: Sports activities and cultural ones succeed as a favourite leisure activities spent at Children's playgrounds or parks. One of the questionnaire items investigating ways of leisure by preschool children. Table 1 shows the spare time leisure modalities for preschool children. The results confirm the top choices for leisure activities in parks or on developed play sites for children for children's play. There were 80.9% elections (of which 53.1% often) for activities in parks, namely 93.8% elections (of which 71.6% often) for activities in playgrounds for children.

| No. |                             | YES   |           |        |       | Don't  |
|-----|-----------------------------|-------|-----------|--------|-------|--------|
|     | ACTIVITIES                  | Often | Sometimes | Seldom | NO    | know/  |
|     | ACTIVITIES                  |       |           |        |       | No     |
|     |                             |       |           |        |       | answer |
| 1   | Pools/Swimming Pools        | 14.8% | 21.6%     | 24.1%  | 33.3% | 6.2%   |
| 2   | Sports Clubs                | 6.2%  | 6.2%      | 12.3%  | 64.2% | 11.1%  |
| 3   | Gyms/places to practice     | 6.8%  | 12.3%     | 16.7%  | 53.7% | 10.5%  |
|     | sports                      |       |           |        |       |        |
| 4   | Rinks/Ice-skating places    | 8.0%  | 14.8%     | 22.2%  | 46.4% | 8.6%   |
| 5   | Cinemas/places running      | 1.2%  | 4.9%      | 23.5%  | 59.3% | 11.1%  |
|     | movies                      |       |           |        |       |        |
| 6   | Puppet theaters/auditoriums | 7.4%  | 32.1%     | 24.7%  | 27.8% | 8.0%   |
|     | for children                |       |           |        |       |        |
| 7   | Places to practice arts     | 6.8%  | 19.1%     | 17.3%  | 45.7% | 11.1%  |
|     | activities                  |       |           |        |       |        |
| 8   | Libraries for children      | 1.9%  | 6.8%      | 17.9%  | 61.1% | 12.3%  |
| 9   | Children's play-centers     | 1.2%  | 6.2%      | 7.4%   | 71.0% | 14.2%  |
| 10  | Kids Clubs                  | 4.9%  | 13.0%     | 11.7%  | 61.8% | 8.6%   |
| 11  | Parks                       | 53.1% | 22.2%     | 5.6%   | 9.9%  | 9.2%   |
| 12  | Parks with playgrounds      | 71.6% | 21.0%     | 1.2%   | 2.5%  | 3.7%   |

#### Tabel 1. Leisure activities for preschool children

Sports activities are necessary for growth and development. Only 76 copies of the 162 children investigated (46.91%) in sport and, of these, 21 children (12.96%) practice two sports. Sports activities are practiced twice per week by most of the children (27.2%) once / week - 11.1% of children, three times / week - 3.1% of children and only 1 9% of the children, five times / week. Most of the children practice swimming (29 children - 17.9%), 19 children (11.7%) football practice, 11 children (6.8%) practice sportive dances, the remaining 10 children (16.2%) practice handball, basketball, karate, tennis, aircraft use, hockey, skiing, skating, gymnastics.

Parents (60.5 %) say they prefer to walk, or rather to take the children to swimming/ swimming pools (swimming classes) (14.8% of parents, often). Another 45.0% of parents (of which only 8% often) go to the rink ( note that the locality where research was conducted is a mountain one) and 35.8% of parents (of which only 6.8% often) states that go to hall sports / places where you can practice sports. When parents say they go with their child to sporting activities, in fact, most of the time the child is taken to sports activities, i.e., preschool is enrolled in a group of sports: karate classes, dance classes, sports, and so on). A small percentage of parents, 24.7% (of which 6.2% often) states that the child goes to sportive clubs (in fact the child is practicing sport: football, tennis, basketball, and so on).

Cultural-artistic activities are favourite pastimes/ spare time activities of/for preschool children as parents surveyed say. However, if they have to choose, they prefer dolls theatre (64.2% elections - which often 7.4%) and places where you can practice arts activities (music, dance, arts, creative, etc.) 43.2% elections - of which 6.8% often. Parents reported much weaker when it comes to cinema attendance (29.6%), libraries (26.6%) or the Toy Libraries (14.8%). If we make a comparative observation between the three age groups, we find that parents of children small group (3-4 years) prefer to go with children in parks and playgrounds designed for children while parents of large group (5 - 6 years) diversify walking with children in various sports (sports clubs, gyms, rinks) and cultural-artistic activities (libraries, creative circles, ludoteques). A possible explanation of this situation is the desire of parents of small group of children to form and develop motor skills, and then, when the kids grow up to be able to orient them towards sports activities and/or cultural-artistic.

Confirmation that playgrounds for children and/or parks are preschoolers favourite comes from the results of another item questionnaire investigating parental preferences for leisure time spent with their children. Parents prefer to go out with the kids in parks or playgrounds (87% of them often and very often). The immediately following activity ranks: walk in the park is chosen by 85.8% of parents (139 parents often and very often), the percentages are substantially equal. Both are activities aimed at leisure in nature, but it has not a very high degree of involvement from parents/ but it does not show a very high degree of involvement on the part of the parents. In the third place, there is a task that requires dynamism and parental involvement: play different games along with the child. The percentage of parents who carry out this activity is 80.9% (131 of parents). The following two events are static activities: reading of stories, poems, writings for children, and so on, carried out by 72.2% of the parents often and very often (131 parents) and watching various TV programs carried out by 47.3% of parents often and very often (77 parents).

The cultural-artistic activities are not visible among leisure preferences of parents. However, if they choose, prefer dolls theatre (64.2% of parents) and places where you can practice artistic activities (music, dance, fine arts, creative, and so on) 43.2% of parents. Parents reported much weaker when it comes to cinema attendance (29.6%), libraries (26.6%) or the Toy Libraries (14.8%). Regarding sports, we can say

that the situation is much better. Thus, 60.5% of parents say they prefer to walk, or rather to take the children to swimming/swimming pools (swimming classes), 45.0% of parents go to the rink and 35.8% of parents say they go to gyms/places where you can practice sports.

Hypothesis 2: There is a gender perspective in choosing leisure variants so that boys prefer sports activities and girls prefer cultural-artistic activities. Results related to preschoolers practicing sporting activities are poor, 46.9% of preschool children in sport (N -162). Of these 24.07% are male and 22.84% are girls. You cannot say that preschoolers are significant differences between different ages. Percentage increased slightly for sport registered preschoolers aged 5-6 years (16.05%) compared to those aged 3-4 years and 4-5 years (15.43%).

The three groups of pre-schoolers, were comparative analysed according to their age (group 3-4, group 4-5 years and 5-6 years group), and gender (female and male). The boys aged 3-4 years are the most active (22.97%), followed by the boys aged 5-6 years (16.22%). For girls, those aged 4-5 years are most active (17.04%), followed very close to/by those aged 5-6 years (15.91%). There has been also investigated the practice of a second sport by pre-schoolers. Only, 19.01% of the investigated preschoolers the practices a second sport, 8.64% of these are boys and 4.32% girls. More active in this respect are boys aged 4-5 years (3.7%), when it come to girls, the most active girls are the one aged 5-6 years (1.85%). If we look at the sports practiced, the most popular are: swimming (17.9%), football (11.7%), sportive dances (6.8%) and karate (4.3%). The boys prefer football (9.88%), swimming (7.41%), karate (3.09%), while girls prefer swimming (10.49%) and sportive dances (5.56%) as the first option for sport. The preschool parent's profile which guides them to practice sport looks like this: parents belong to category of age 30-39 years (77.6%), married (89.5%) have a safe child (56.6%) and a monthly income of 400 E (40.8%).

Preschoolers practice in a much smaller percent cultural-artistic activities, only 12.3% of them (N -162). Girls have a higher percentage (8.64 %) than boys (3.7 %). The most active are preschoolers aged 5-6 years (6.17%), followed by those aged 3-4 years (3.70%), the lowest being represented pre-schoolers aged 4-5 years (2.47%). Analysing the gender girls aged 5-6 years given the highest number of practitioners (6.42%), followed by those aged 4-5 years (5.68%), and followed by the boys aged 5-6 years (5.41%). If we take a look at the cultural-artistic activities practiced, from the popularity side, those are: painting, drawing (8%), ballet, i.e. a musical instrument (violin, piano, percussion instrument) (2.5%). Both girls and boys prefer painting, drawing of these kind of activities (5.56 % - girls respectively 2.45% - boys). The preschool parents which guide them to practice cultural-artistic activities have a similar profile to those who directs them towards the sport, i.e. category: age 30-39 years (83.3%), married (91.7%), have only a child (54.2%) and a monthly income of 400 E (45.8%).

#### 6. Conclusions

The results confirm the top choices for leisure activities in parks or on children's play developed sites. There were 80.9% choices for activities in parks, 93.8% respectively choices for activities occurring in places for children's play designed. Percentages ahead of the 60.5% of parents who claim they prefer to walk, or rather to take the children to swimming pools/ponds, or 45.0% of those parents whose children go to the rink and the 35.8% of parents states that they go to gyms/places where you can practice sports. More precisely, there were 46.9% children practicing sports, i.e. 12.3% of children performing cultural-artistic activities.

Preschool boys practicing sports are slightly higher percentage than girls (24.07% vs. 22.84%, N -162). Boys aged 3-4 years are most active (22.97%), followed by those aged 5-6 years (16.22%). Boys are more active then the girls investigated. Among the investigated preschoolers 8.64% boys are practicing a second sport versus 4.32% of girls. Boys exhibit more activism (3.7% compared with 1.85% boys girls). The boys prefer: football (9.88%), swimming (7.41%), karate (3.09%), girls prefer swimming (10.49%) and sportive dances (5.56%) as the first option for sport. 19.1% of children practice a second sport, 51.3% of whom were boys. The preschool parents profile which guide them to practice sport belongs to the age category 30-39 years (77.6%), married (89.5%), have only a child (56.6%) and a monthly income of 400 E (40.8%). Girls practice cultural-artistic activities in greater proportion than boys (8.64% vs. 3.7%, N -162). In terms of age, girls aged 5-6 years given the highest number of practitioners (6.42%), followed by those aged 4-5 years (5.68%), and then then followed by boys aged 5-6 years (5.41%). Cultural-artistic activities practice includes: painting, drawing (8%), ballet, i.e. a musical instrument (violin, piano, percussion instrument) (2.5%). Both girls and boys prefer painting, drawing of these activities (5.56% girls, respectively 2.45% boys). Preschool parents which guide them to practice cultural-artistic activities have a similar profile to those who guide them for sport, i.e.: belonging to the age category 30-39 years (83.3%), married (91.7%), have only a child (54.2%) and a monthly income of 400 E (45.8%).

#### Acknowledgements

The work is the product of research conducted within the project PERFORMER - POSDRU/86/1.2/S/62508

## References

Aarts, M. J., Wendel-Vos, W., van Oers, H. A. M., van de Goor, I. A. M., & Schuit, A. J. (2010). "Environmental Determinants of Outdoor Play in Children: A Large-Scale Cross-Sectional Study" in *American Journal of Preventive Medicine*, *39(3)*, *212-219*.

Anderson, S. E., Economos, C. D., & Must, A. (2008). "Active Play and Screen Time In Us Children Aged 4 To 11 Years In Relation To Sociodemographic and Weight Status Characteristics: A Nationally Representative Cross-Sectional Analysis". *BMC Public Health, 8, 13.* 

Bell, J. F., Wilson, J.S., & Liu, G.C. (2008). "Neighborhood greenness and 2-year changes in Body Mass Index of children and youth" in *American Journal of Preventive Medicine*, 35(6), 547-553.

Bowler, D.E., Buyung-Ali, L.M., Knight, T.M., Pullin, A.S. (2010). "A systematic review of evidence for the added benefits to health of exposure to natural environments" in *BMC Public Health*, *10(1)*, *456*.

Cardon, G. M., De Bourdeaudhuij, I. M. M. (2008). "Are Preschool Children Active Enough? Objectively Measured Physical Activity Levels" in *Research Quarterly for Exercise and Sport 79 (3), 326-332.* 

Cardon, G., Van Cauwenberghe, E., Labarque, V., Haerens, L., De Bourdeaudhuij, I. (2008). "The contribution of preschool playground factors in explaining children's physical activity during recess" in *International Journal of Behavioral Nutrition and Physical Activity 5 (11)*.

Carver, A., Timperio, A., & Crawford, D. (2008). "Playing it safe: The influence of neighbourhood safety on children's physical activity - A review." In *Health & Place, 14(2), 217-227*.

Dwyer, G.M., Higgs, J., Hardy, L.L., Baur, L.A. (2008). "What do parents and preschool staff tell us about young children's physical activity: a qualitative study" in *International Journal of Behavioral Nutrition and Physical Activity*, 5 (11).

Dyment, J. (2005). "Gaining ground: The power and potential of school ground greening in the Toronto District School Board: Evergreen" in *Children and Nature*. Research and Studies VolumeThree – September 2008.

Fjørtoft, I., Kristoffersen, B., & Sageie, J. (2010). "Children in Schoolyards: Tracking Movement Patterns and Physical Activity In Schoolyards Using Global Positioning System And Heart Rate Monitoring" in *Landscape and Urban Planning*, 93.

Handy, S., Cao, X., & Mokhtarian, P. (2008). "Neighborhood design and children's outdoor play: evidence from Northern California. Children" in *Youth and Environments*, *18(2), 160-179*.

Heitzler C.D., Martin S.L., Duke J.& Huhman M. (2006). <u>"Correlates Of Physical</u> <u>Activity In A National Sample Of Children Aged 9–13 Years" in</u> *Preventive Medicine*, 42 (4),254-260.

Hinkley, T., Crawford, D., Salmon, J., Okely, A.D., Hesketh, K. (2008). "Preschool children and physical activity - A review of correlates" in *American Journal of Preventive Medicine*, 34(5), 435-441.

Hofferth, S.L. & J.F. Sandberg. (2001). "Changes in American Children's Time, 1981-1997." In S.L. Hofferth & T.J. Owens (Eds.), *Children at the Millennium: Where Have We Come From, Where Are We Going? (pp. 1-7). New York: JAI, 2001.* 

Jago, R., Thompson, J.L., Page, A.S., Brockman, R., Cartwright, K., Fox, K.R. (2009). ,,Licence to be active: parental concerns and 10-11-year-old children's ability to be independently physically active" in *Journal of Public Health*, *31(4)*, *472-477*.

Little, H. (2010). "Relationship between parents' beliefs and their responses to children's risk-taking behaviour during outdoor play" in *Journal of Early Childhood Research*, 8(3), 315.

Nilsson, A., Andersen, L. B., Ommundsen, Y., Froberg, K., Sardinha, L. B., Piehl-Aulin, K. (2009). "Correlates of objectively assessed physical activity and sedentary time

in children: a cross-sectional study (The European Youth Heart Study)" in *BMC Public Health*, 9.

Page, A.S., Cooper, A.R., Griew, P., Davis, L., Hillsdon, M. (2009). "Independent mobility in relation to weekday and weekend physical activity in children aged 10-11 years: The PEACH Project" in *International Journal of Behavioral Nutrition and Physical Activity, 6 (9).* 

<u>Pomerleau</u>, A., <u>Bolduc</u>, D., <u>Malcuit</u>, G., <u>Cossette</u>, <u>L</u>. (1990). "Pink or blue: Environmental gender stereotypes in the first two years of life" in <u>Sex Roles</u> 22 (<u>5-6</u>), 359-367.

Raymore, L., Godbey, G., Crawford, D. W. (1994). "Self-Esteem, Gender, and Socioeconomic Status: Their Relation to Perceptions of Constraint on Leisure among Adolescents" in *Journal of Leisure Research*, 26 (2).

Sandercock, G., Angus, C., & Barton, J. (2010). "Physical activity levels of children living in different built environments" in *Preventive Medicine*, *50(4)*, *193-198*.

Singer, D. G., Singer, J. L., D'Agostino, H., & DeLong, R. (2009). "Children's pastimes and play in sixteen nations". American Journal of Play (Winter): www.americanjournalofplay.org/

Taylor, R. W., Murdoch, L., Carter, P., Gerrard, D. F., William, S. M., & Taylor, B. J. (2009). "Longitudinal Study Of Physical Activity And Inactivity In Preschoolers: The FLAME Study". *Medicine and Science in Sports and Exercise*, *41(1)*, *96-102*.

Timperio, A., Crawford, D., Telford, A., & Salmon, J. (2004). "Perceptions About the Local Neighborhood and Walking and Cycling Among Children" in *Preventive Medicine*, 38(1), 39-47, 2004.

Tucker, P. (2008). "The Physical Activity Levels Of Preschool-Aged Children: A Systematic Review" in *Early Childhood Research Quarterly*, 23(4), 547-558.

Tucker, P., Irwin, J.D., Gilliland, J., He, M., Larsen, K., & Hess, P. (2009). "Environmental influences on physical activity levels in youth" in *Health & Place*, 15(1), 357-363.

Veal, A.J.(1992). Definitions of leisure and recreation in *Australian Journal of Leisure and Recreation*, 2(4), 44-48, 52.

Wen, L. M., Kite, J., Merom, D., & Rissel, C. (2009). Time spent playing outdoors after school and its relationship with independent mobility: a cross-sectional survey of children aged 10-12 years in Sydney, Australia. *International Journal of Behavioral Nutrition and Physical Activity*, 6, 8.

Wheeler, B.W., Cooper, A.R., Page, A.S., Jago, R. (2010). "Greenspace and children's physical activity: A GPS/GIS analysis of the PEACH project" in *Preventive Medicine*, *51*(2), *148-152*.

Wood, C., Hine, R., Barton, J. (2011). "The health benefits of the Youth Outdoor Experience (YOE)" project: University of Essex.

Wridt, P.J. (2004). "An Historical Analysis of Young People's Use of Public Space, Parks and Playgrounds in New York City" in *Children, Youth and Environments 14(1), 86-106, 2004.*