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Experiences and Attitudes of Parents about Children's Free Time at Children's Sports Playgrounds

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Abstract

The importance of children's stay at children's playgrounds is important for the overall development of children. Numerous studies support children's stay at playgrounds to develop social, cognitive, and psychomotor skills. The goal of this study was to determine the attitudes of parents of early and preschool children about children's stay at playgrounds and parents' experiences with the equipment of children's playgrounds. Also, this study aims to correlate factors that affect children's visit to playground. For the research, a questionnaire was constructed that contains units that examine the equipment of children's playgrounds, attitudes about the frequency of visits to children's playgrounds, and attitudes about the importance of visiting children's playgrounds. The research is carried out online and includes the population of parents of children of early and preschool age in the Republic of Croatia. The results of this research show the proximity of children's playgrounds, from 100 to 250 meters, to the respondent's place of residence. In all regions, the greatest availability is space for jogging and walking, while the least available space is for table tennis. Multiple regression analysis showed a statistically significant correlation of $R=0.45$ between visiting children's playgrounds and parents' attitudes and opinions about children's playgrounds. Our results show that the distance of children's playgrounds largely depends on their attendance, but their equipment is not important for children's physical activity.

Keywords: children's development, benefit of playgrounds, preschool age, physical activity

Introduction

Play is an important activity for the child that develops numerous competencies and influences the child's development as a driver of active action in physical, social, cognitive and emotional aspects (Berk, 2004; Wood, 2013). One of the key problems of globalization is urbanization, which has an impact on shaping the environment in which we live (Luo, 2022; Safari & Knaftani, 2022). Therefore, it is important to see the role of the environment as a factor of well-being for the child and to design children's playgrounds as a space that encourages children to have fun but also to develop skills and knowledge (De Alvarenga et al., 2018; Yapici et al., 2019; Franklin et al., 2022). Numerous authors emphasize the importance of the equipment in children's playgrounds

(Gray & Feldman, 1997; Valentine & McKendrick, 1997; Kan-Kilic, 2021; Sasakom et al., 2022,) and the role of the elements, the safety of children, the natural environment and hygiene as factors that influence attendance. Children's playgrounds (Barbour, 1999; Fjotroft, 2004; Eager et al., 2021; Lou, 2022).

Basic characteristics of children's playgrounds

According to Brownell (2022), the awareness of educational and local policy about the role of children's playgrounds in the overall development of children determines the equipment, number, and structure of children's playgrounds. Kan-Kılıç (2021) believes that the social awareness and responsibility of adults towards the physical and psychomotor de-



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velopment of children is an important predictor in the planning and construction of children's playgrounds. Dymont & O'Connell (2013) emphasize the importance of the structure of children's playgrounds and the equipment that defines the structure. The results of quantitative research, which Dymont & O'Connell (2013) conducted by video monitoring the frequency of visits to parts of children's playgrounds, point to reflecting on the elements that contribute to challenges in the development of children's competencies as well as children's safety. As an additional factor for the safety of children's health, they cite protection from natural sources of heat or cold, soft surfaces that mitigate falls, and the economic use of natural materials in the design of the elements of the children's playground. Therefore, Vlosky & Shape (2005) point to a minimal health risk in using natural materials in the construction of play elements on children's playgrounds (Ernst, 2017). Furthermore, the authors point out that the protection of children's health on children's playgrounds is an important criterion when designing playground equipment. The risk contributed by inadequate equipment (fragile materials, not resistant to weather conditions) and its use in children's playgrounds can endanger the safety and health of children (Eager et al., 2021; Sasakom et al., 2022). According to (Aklibaşinda et al., 2018; Nasar & Holloman, 2022; Safari & Knaftaki, 2022) the green surface of children's playgrounds in urban areas enables the development of various group games such as football, field hockey, etc. elements, natural materials of elements and flowers and plants as characteristics of ecological diversity.

Development of children's competencies on children's playgrounds

The playground concept (Wolley, 2008) should have a structure that encourages children to develop numerous competencies such as motor, social, emotional, and cognitive. Hazlehurst et al. (2022) believe that children's physical activity on children's playgrounds contributes to children's mental health. According to studies (Bauman, 2004; Fjørtoft, 2004), physical activities on natural grounds have a greater impact on children's physical and motor development than activities on unequipped playgrounds, therefore it is necessary to provide children on playgrounds with elements that will encourage children to grab, climb, crawl, and swing. In addition to physical activities, children on playgrounds interact with other children and thus develop social skills (Dymontai & O'Connell, 2013) Interaction with other children on playgrounds contributes to self-regulation, and awareness of their physical capabilities in relation to others and encourages motivation in terms of setting limits and challenges (Miller et al., 2017) It is children of mixed age groups who interact with each other on children's playgrounds, who are successful in developing the aforementioned competencies because they support each other and the older are role models for the younger (Gray & Feldman, 1997; Parrott and Cohen, 2022).

Storli and Sandseter (2019) emphasize the connection between functional play and the equipment of children's playgrounds. The results of the research indicate the importance of the elements of children's playgrounds, which play a role in shaping children's perception of play and the functional structure of the game, with which children test the child's function and thereby develop cognitive abilities.

Parents attitudes about children's free time at children's playgrounds

A children's playground is a place where parents and children spend part of their free time. The possibility of socializing with other parents and creating friendships shows children the parental role as a model that realizes and builds social relationships (Leff et al., 2005). In this sense, children's playgrounds also have an educational role (Luo, 2022). In addition to socialization and interpersonal relationships, the authors highlight numerous reasons why parents and children visit children's playgrounds (Dymont & O'Connell, 2013; Aklibasinda et al., 2018). Parott & Cohen (2021) point out that parents have a greater preference for playgrounds based on nature and natural materials. Parental motivation for staying at children's playgrounds includes awareness of the importance of physical activity in reducing obesity in children, which is a common phenomenon nowadays.

According to Franklin-Luther & Volk (2022), the time parents spend with their children on playgrounds and the reason for parents' participation in children's activities on playgrounds coincides with the emotional connection between children and parents. Excessive care and fear of injury can be factors that contribute to the reasons for children's absence. on children's playgrounds. The results of the Franklin-Luther & Volk (2022) research, which included 100 parents and their children observed playing on children's playgrounds, indicate that the representation of free play by children without the proximity of parents and semi-free play - play that is supervised and controlled by parents. However, the research does not include the age of the children, which is important because the psychomotor development of children of early and preschool age is growing, and the presence of parents is necessary. Also, it is necessary to look at the overall context, which includes the equipment of the playground, the proximity of the family home, and the protective factors found on the playgrounds. In the survey of parents' opinions of children's playground Carson et al. (2010) determined the three categories of visiting playground: satisfaction/services, safety, and sidewalks/parks. In recent decades, scholarly interest in children's recreational activities in parks has grown. The emotional demands and reactions of kids to their activities in a park's play areas, however, have received comparatively little attention. Additionally, little is known about how parents view and interact with children's play areas. In the research of Chen et al. (2020), the purpose of the qualitative research is to investigate parents' perceptions of this specific playing environment. With the help of participant observations, interviews, and research of online reviews, the paper discovers that taking children to parks helps parents reminisce about their own youth and experience emotional healing. According to the research, play areas serve as "building blocks" for family life and childhood as well as being used by kids to play. Babaev et al. (2019) supports playground's social and cultural potential as well as their function in the planning of practical leisure for a contemporary family. The results of research of parents attitudes about importance of playgrounds, indicate that playgrounds are intended for leisure and enjoyment of children and parents. The authors come to the conclusion that it is necessary to research, develop, and promote the positive experience of modern playgrounds for the organization of socially justifiable and diverse family leisure, contributing to the spiritual

enrichment and physical improvement, the horizons broadening, and the realization of the creative potential of the individual, taking into account the importance of the theme playground's socio-cultural activities.

Methods

Participants

The research was conducted on a sample of 220 parents, of which 205 were women, 82% of whom were employed, and 15 men, of whom 96% were employed in the Republic of Croatia. The criteria for selecting respondents included parents who have early and preschool age (0-7 years). A significant number of parents declared that they have two or three children, 151 of them, 56 parents have only one child, while 13 have four or more children. Of these, 154 are children between the ages of three and five, followed by 46 parents who have a child between the ages of six and seven and 20 with children between the ages of zero and two. The average age of the respondents was 35 ± 6 . During data collection, an equal number of respondents from all regions of the Republic of Croatia was tried but it wasn't reached. The largest number of respondents ($n=138$) was from the region of Slavonia, followed by the region of central Croatia ($n=70$) and the region of Dalmatia ($n=12$). All respondents agreed to the research and were familiar with the conducted research. During the research, the respondents' anonymity was respected and they could opt out of filling out the questionnaire at any time.

Measuring procedures

For the research, a questionnaire was constructed according to the Designing for Children's Play in Public Open Spaces model (Wolley, 2008) and adapted to the needs of this research. The first part of the questionnaire consists of seven independent demographic variables (gender, age of parents, place of residence by region, number of children, age of children, employment of father and mother). The next part of the questionnaire consisted of eleven questions related to the

content found in children's playgrounds near the respondent's place of residence. Respondents had multiple answers to the above questions. The last part of the questionnaire consisted of thirty-two variables of parents' experience and attitudes about the use of children's playgrounds. Dependent variables are scaled according to the Likert scale: 1-completely disagree, 2-disagree, 3-agree, 4-completely agree. The survey questionnaire contains satisfactory metric characteristics, which were determined according to Cronbach's alpha, which is 0.85. The questionnaire was compiled in a Google form and delivered to kindergarten directors, who then forwarded it to parents.

Statistical analysis

After the collected data, statistical processing was performed using TIBCO Statistic Version 14.0.0.15 software (TIBCO Software Inc, USA). The data were processed using descriptive statistics to determine the arithmetic means of the responses according to the regions of residence. After that, a multiple regression analysis was applied to determine the connection between the frequency of visiting children's playgrounds and the predictor variables of parents' opinions and attitudes about children's playgrounds. Statistical significance was set at 0.05.

Results

The obtained results were processed using basic descriptive statistics to see if there are differences according to the location and attendance of children's playgrounds in the region of residence (Table 1). Descriptive statistics did not reveal a big difference in arithmetic means among the three regions. The respondents declared that the location of children's playgrounds is extremely close to them, from 100 to 250 m from their place of residence, and is located near residential buildings. It can be concluded that availability of children's playgrounds in the three macro-regions is satisfactory considering the answers received. Regardless of the proximity of children's sports playgrounds, attendance is only a few times a week.

Table 1. Location and frequency of children's playgrounds with regard to the region of residence.

| Variable | Slavonia N=138 | | Dalmatia N=12 | | Central Croatia N=70 | |
|---|-------------------|--------|------------------|--------|-------------------------|--------|
| | M | St.Dv. | M | St.Dv. | M | St.Dv. |
| Specify the approximate distance of the children's playground from your home. | 3,26 | 1,49 | 3,75 | 1,35 | 3,76 | 1,49 |
| I visit the children's playground (with parents, only child, sometimes alone and sometimes with parents). | 1,12 | 0,49 | 1,16 | 0,57 | 1,00 | 0 |
| A year ago, the children's playground was visited by the child (how often). | 2,45 | 0,91 | 2,72 | 1,04 | 2,64 | 1,00 |
| We spend time on the playground (indicate the approximate hourly rate). | 1,73 | 0,60 | 1,16 | 0,49 | 1,78 | 0,54 |
| A children's playground is located. | 2,51 | 1,13 | 2,16 | 0,98 | 2,82 | 1,19 |

Legend: M-mean, St.Dv.- standard deviation

Table 2. shows the basic descriptive parameters of the arithmetic mean (M) and standard deviation (St.Dv.) about the region of residence of the respondents. Respondents from all regions found extremely low availability of sports content near their place of residence. In all regions, according to arithmetic averages, the most available space for walking and running is available (Slavonia – 3.05; Dalmatia – 3.25; Central

Croatia – 3.06). The highest availability of a concrete football field according to the arithmetic mean of 3.25 is expressed in the region of Dalmatia with a standard deviation of 0.96. The variable A tennis court is easily accessible for children has the lowest accessibility in all regions according to arithmetic means (Slavonia – 1.69; Dalmatia - 1.25; Central Croatia -1.81).

Table 2. Available sports content with regard to the region of residence.

| Variable | Slavonia N=138 | | Dalmatia N=12 | | Central Croatia N=70 | |
|---|-------------------|--------|------------------|--------|-------------------------|--------|
| | M | St.Dv. | M | St.Dv. | M | St.Dv. |
| A football (concrete) field is easily accessible for children. | 2,65 | 0,97 | 3,25 | 0,96 | 2,57 | 1,07 |
| A football (grass) field is easily accessible for children. | 2,71 | 0,97 | 2,25 | 1,28 | 2,66 | 1,08 |
| A basketball court is easily accessible for children. | 2,59 | 1,01 | 2,25 | 1,21 | 2,47 | 1,04 |
| A handball court is easily accessible for children. | 2,03 | 0,99 | 1,91 | 1,08 | 2,17 | 0,94 |
| Free space for cycling or rollerblading is easily accessible to children. | 2,60 | 1,01 | 2,58 | 1,24 | 2,62 | 1,11 |
| A tennis court is easily accessible for children. | 1,69 | 0,86 | 1,25 | 0,45 | 1,81 | 0,97 |
| There is an easily accessible space for children to run and walk. | 3,05 | 0,97 | 3,25 | 1,05 | 3,06 | 1,05 |
| Space for free sports activities is easily accessible to children | 2,91 | 0,93 | 2,92 | 1,61 | 2,84 | 1,06 |

Legend: M-mean, St.Dv.- standard deviation

Multiple regression analysis (Table 3.) showed a statistically significant correlation of $R=0.45$ between the criterion variable of visiting children's playgrounds and the predictor variables of parents' attitudes and opinions about children's playgrounds. The model is explained with 20% of the variance and is significant at the $p < .00$ level. Using the backward method of excluding predictor variables that least affect the criterion variable, a model of six variables that significant-

ly affect attendance at children's playgrounds was obtained. The predictor variable of parents' awareness of spending free time on children's playgrounds contributes the most to the criterion variable, whose partial regression coefficient (Beta) is $-.27$. The negative correlation indicates that increasing parents' awareness of the importance of spending free time at children's playgrounds will not lead to an increase in attendance.

Table 3. Regression analysis.

| Variable | Beta | B | t | p |
|--|-------|-------|-------|------|
| Specify the approximate distance of the children's playground from your home. | -0,14 | -0,04 | -2,22 | 0,03 |
| We spend time on the playground. | 0,15 | 0,10 | 2,37 | 0,02 |
| The children's playground is additionally equipped. | -0,23 | 0,00 | -3,68 | 0,00 |
| Children of early and preschool age should stay on the children's playground only with supervision parents or elderly people. | -0,18 | -0,11 | -2,76 | 0,01 |
| It is important that parents and educators (if the child goes to kindergarten) they exchange information about what has been done free time at children's playgrounds. | 0,21 | 0,10 | 3,08 | 0,00 |
| It is important that parents stay with the children on the children's playground during free time. | -0,27 | -0,16 | -3,88 | 0,00 |

$R=0,45$; $R^2=0,20$; Adj. $R^2=0,18$; Std. Err. est: 0,36; $F=8,90$; $p<0,00$

Legend: *R – multiple correlations, R^2 – coefficient of determination, Adj. R^2 – adjusted coefficient of determination, Std. Err. est – standard error of estimation, F – test value, p – value of significance level of the F test, B – unstandardized partial coefficient, Beta – partial standardized coefficient of regression, t – value of the t-test of partial regression coefficient, p-value – significance level.

Discussion

According to the World Health Organization (WHO, 2010), children should be physically active for a minimum of 60 minutes a day. This includes intense activities that increase heart rate and rapid breathing. It can be concluded that spending free time in children's sports playgrounds is not culturally represented. Parental perception of children's sports play-

grounds, according to the frequency of use of children's sports playgrounds, shows that children's playgrounds are not perceived as having multiple benefits for the child or there are aggravating circumstances that prevent regular use of children's sports playgrounds. Non-use of children's sports playgrounds can initiate other forms of leisure sports activities organized as shorter sports programs in kindergartens or other forms of

structured and organized sports activities for children.

Going to children's playgrounds often depends on the parents and their capabilities. Table 1 shows that most parents go to playgrounds together with their children, mostly in central Croatia, where there are no discrepancies between the answers. In the regions of Slavonia and Dalmatia, there is a certain variation and sometimes children go to children's playgrounds independently. Franklin-Luther and Volk (2022) emphasize the existence of a culture of fear among parents, and they are more protective and prevent the child from playing independently so as not to injure himself. The consistency corresponds to central Croatia, related to the constant accompaniment of children to sports playgrounds, which is logical due to the size of the city and the higher level of perception of danger, but also the presence of fear. Previous research (Eager et al., 2021; Sasakom et al., 2022) confirms that the fear and perception of the safety of children's playgrounds, but also the neighborhood, is a key factor in the frequency of children spending their free time on playgrounds. Children of primary school age in the central Croatian region are also more inclined to spend their free time in some form of structured activities, unlike children from the Dalmatian region (Matijašević, 2022). Connecting this with this research, a different culture of spending free time between the two macro-regions is evident, which starts already at pre-school age and continues during school days.

Sports children's playgrounds, in addition to being intended for fun, should be an incentive for the development of motor and functional abilities and cognitive development. Playgrounds are not only a few devices but also the accompanying content that is located nearby. Along with children's playgrounds, the highest availability of space for running and walking among all three regions is visible, while the lowest availability is space for table tennis (Table 2). In Dalmatia, the possibility of accessibility of a concrete football field has been expressed in comparison to other regions. Taking into account the cultural preferences of the Dalmatian region towards football as a sport, the presence of concrete football fields is expected. Football in Dalmatia is more than just a sport. He is the bearer of the sports culture of Dalmatia, integrated into the daily activities of children and young people. It is representative of Dalmatian identity and an expression of rivalry and macro-regional affiliation (Tsai, 2021).

Previous research by Nasar and Holloman (2022) points

out that more than 87% of parents recognize the importance of children's playgrounds and all the natural elements that surround them. Insufficient free time for parents and the increased employment of mothers (82% of working mothers) due to the modern lifestyle leads to lower attendance at playgrounds, regardless of their awareness.

In this research, the equipment of children's playgrounds is negatively related to their attendance. Additional equipment for children's playgrounds will not lead to an increase in attendance. This confirms previous research by Maccket (2004), which indicates that the level of physical activity of children does not change with regard to the equipment of the playground. Additional equipment on sports grounds will not be a predictor of children's physical activity, but parents play an important role in physical activity. Any intervention in preschool depends on the involvement of parents (Franklin-Luther and Volk, 2022).

Through regression analysis, a negative correlation between the distance of children's playgrounds and the attendance of children's playgrounds was determined. Increasing the distance will decrease their attendance. According to UNICEF (2021), the availability of children's sports playgrounds is extremely important so that the child can realize the primary need for play. A macro-regional analysis determined the satisfactory proximity of children's playgrounds in the Republic of Croatia. Thus, their availability does not represent a problem of lower attendance determined by descriptive indicators.

Conclusion

This research showed equal availability of children's playgrounds in all macro-regions, but insufficient attendance. There is an insufficient number of facilities for table tennis in all macro-regions. Dalmatia has a marked availability of concrete football facilities, which is expected considering the preferences towards football. Further regression analysis established the connection between children's playground visits and parents' attitudes about the importance of children's playground visits. Increasing parents' awareness of the usefulness of children's playgrounds will not lead to an increase in the number of playgrounds being cut down. The distance of children's playgrounds largely depends on attendance, but their equipment is not essential for children's physical activity.

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Conflict of Interest

The author declares that there are no conflicts of interest.

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