

PARENTS AND SPORT ACTIVITY OF THEIR PRESCHOOL CHILDREN

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Abstract

The aim of this research is to determine the possibilities of achieving higher sports activity among preschool children. We have used a questionnaire for children's parents to gather data for this research. The sample included 154 parents. This research has shown that there are factors that could increase sport activities among preschool children and that these factors are directly influenced by the children's parents. These factors are: parents' involvement in sport activities, spending active holidays together, sociability, and their parents' positive attitude towards sport.

Key words: sport, child, kindergarten, parents, environment, questionnaire, maximum likelihood method

Izvleček

S pomočjo raziskave smo želeli ugotoviti, kakšne so možnosti za doseganje čim večje športne aktivnosti predšolskih otrok. Podatke smo zbirali s pomočjo anketnega vprašalnika, na katerega so odgovarjali starši. Vzorec je vseboval 154 staršev. Ugotovili smo, da obstajajo dejavniki, ki lahko povečujejo športno aktivnost otrok in na katere imajo starši neposreden vpliv, in sicer: športna dejavnost staršev, aktivno preživljanje počitnic družine, navajanje otroka na družbo in starševsko pozitivno mnenje o športu.

Ključne besede: šport, otrok, vrtec, starši, okolje, anketni vprašalnik, metoda največjega verjetja

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Introduction

The preschool period is the fundamental period for the development of a child's motor abilities. In early childhood children are most affected by influences from the society and the surrounding environment; this influences the development of their personalities. Experts have established that whatever is missed in the early childhood is difficult to be compensated for in later periods. A child's activities in the early years represent a foundation for later sports activity and at the same time affect the development of their skills and characteristics (Videmšek, Strah, & Stančević, 2001).

The environment we live in does not affect only the development of a child's motor skills. It is also one of the main elements contributing to forming a human personality, most notable in the preschool period. Battelino (1986) is of the opinion that it is the preschool period when the fundamentals of a healthy physique, psychosomatic characteristics and basic motor habits are being formed. Videmšek (1996) states that if we want the child to achieve an optimal development regarding his or her genetic potential, the environment we live in should be creative, heterogeneous and stimulating. Capabilities and characteristics that do not develop in the early childhood are less likely to develop at a subsequent time or even to develop at all.

The most important factors in a child's environment, affecting the formation of the entire personality are the family, the kindergarten and wider social community (Videmšek, & Karpljuk, 1999).

In this research, the term environment, which is defined as a primary, is family environment. The family represents a child's first social environment and has therefore a primary influence on the child's motor, cognitive, emotional and social development. Kalish (2000) quotes an American research which has shown that children whose mothers are sport-active are twice more active than those whose mothers who are not active in sport. The influence of fathers in the family is even more significant – children whose fathers are sport active are three-and-a-half-times more active than those whose fathers are not active in sport. If both parents are active in sport, their children are far more sport-active – even six times more than those whose parents are not active in sport. Kalish (2000) mentions three factors which are important to improve the health and the physical condition of the family:

- Parents should offer their children positive verbal and non-verbal messages about a healthy life-style.
- Parents themselves should be in good shape.
- Parents should have an active interest in the sport activities of their children. They should be involved in sport activities together and they should raise their children to have respect for an active and healthy life-style.

In this research the characteristics of the environment are defined with the help of explanatory factors. These factors define the characteristics of parents (such as age, education, earnings, sport activity, etc.) Furthermore, we have focused on four to six year-old preschool children. We have studied their sport activity and defined it as an indication of sport activity among preschool children.

Methods

The subject sample

In this research, the sample has been selected among three randomly chosen kindergartens from the urban (Ljubljana) and the rural (the outskirts of Ormož and Moravče) environments. We have used a questionnaire for children's parents to gather data for this research. The sample includes 154 parents, 86 from the urban and 68 from the rural environment.

The sample of variables

The questionnaire was based on a questionnaire used by Videmšek (1996). However, several changes were made regarding the defined aim of the research. The questionnaire was presented by Kropej (2001). Variables obtained by the questionnaire have been divided into 5 dependent variables (indicators of children's sport activity) and 19 explanatory factors (predictors). The dependent variables or indicators of children's sport activity are:

- *organized forms of sport activities* the children are involved in (yes, no);
- *number of sport activities* children are involved in (one, two, three or more);
- *visit of a sport playroom* (yes, no);
- *parents involvement in children's sport activities* (yes, no);
- *parents willingness* to have their children participate a sport week or a sport weekend, if professionally organized and conducted (yes, no);

Explanatory factors of children's sport activity are the following variables:

- *environment* (urban, rural environment);
- *gender of the questioned parent* (male, female);
- *age of the questioned parent* (number of years);
- *education of the questioned parent* (1. primary school or no formal education, 2. vocational or secondary school, and 3. higher school or university education);
- *marital status of the parent* (married, single);
- *sport activity of the parent* (1. considers him/herself a seasonal athlete, a hiker, a recreational athlete or nothing of that, 2. is organized, unorganized or not occupied with sports, and 3. how often is he/she practicing sports (several times yearly, 1-3 times monthly, several times weekly or never);
- *monthly earnings of the parent* (1. less than EUR 280, 2. between EUR 280 and EUR 560, and 3. more than EUR 560);
- *employment of the parent* (1. employed, 2. self-employed or manager, and 3. other);
- *living environment* (flat, a house);
- *way of spending the holidays* (1. place of spending the holidays (at home, at a seaside or elsewhere), and 2. how the family spends their holidays (actively or inactively));
- *number of children in the family*,
- *number of kindergarten children*,
- *children's sociability* (the child is sociable, the child is not sociable);
- *child's opinion about the kindergarten* (child likes to go to the kindergarten, child does not like to go to the kindergarten);
- *availability of a sport playroom* (sport playroom is available, sport playroom is not available) and
- *parent's opinion about the influence of sport on the child's development* (the influence of sport on the child is positive, the influence of sport on the child is negative).

The method of data processing

For each criterion (indicator of sport activity) the correlations with explanatory variables have been determined, on the basis of which we could determine those factors that affect the children's sport activity, and how they affect it. The findings of this research are interpreted with a matrix table combi-

ning sport activities and explanatory variables, which explains an overall picture of correlations dependencies.

The usual regression analysis (*least squares*) was not appropriate for studying the influence of individual explanatory factors on the children's sport activity and its importance. Instead, the statistical method adjusted to nominal variables has been used. Greene (1997) suggests in the case of nominal variables an application of *maximum likelihood method*. With a least maximum function we estimated the probability that the observed dependent variable would have a certain value in regard to different values of explanatory variables. Similar to the regression analysis the maximum likelihood method shows the correlation between the explanatory variables (predictors) and dependent variable (criterion). The disadvantage of this method is that it does not provide the researcher with the explained variance of the criterion (*R-Square* in case of regression analysis). Therefore the researcher could not simply estimate the portion of the total variance of the criterion that has been explained by the predictors, but could only argue that the selected or found group of predictors has a statistically significant influence on the criterion and present corresponding probability values.

Results

An overall picture of the analysis' results is shown in the matrix table explaining how the explanatory variables influence all the examined indicators of sport activity among preschool children (Table 1). The matrix table shows how the explanatory variables influence the dependent variables. The character *plus* (+) denotes a positive influence of an explanatory factor, whereas the character *minus* (-) denotes a negative influence of the explanatory variable. For example, the explanatory factor *urban environment* (in comparison to the *rural environment*) increases the likelihood that the child would be occupied with three or more sport activities (for 18%), and decreases the probability that a child would be occupied with only one sport activity (for 9%). The matrix table indicates the direction of the correlation (positive/negative) and not how strong the correlation is. A more detailed insight in the results of the research has been presented by Kropej (2001). The matrix table shows that some explanatory variables influence mostly certain in-

Table 1: Influence of explanatory variables on all examined indicators of sport activity among preschool children.

+ ... positive influence of the explanatory factor - ... negative influence of the explanatory factor o ... between different groups are no statistically significant differences (the same mean blanks) In parenthesis are the probability values.		Indicators of sport activity	Occupation with sports	The number of sport activities			Visiting the sport playing room	Parent's occupation with child's sport activity	Sport weekend or week
Explanatory factor	Explanatory factor (group)	Basic group / Sport activity (group)	YES	ONE	TWO	THREE OR MORE	YES	NO	WOULD SEND
Gender	Male	Female	- (25%)	o	o	+ (17%)	- (28%)	+ (74%)	+ (35%)
Environment	Urban	Rural	+ (11%)	- (9%)	o	+ (18%)	+ (18%)	- (39%)	+ (38%)
Narrow environment	Flat	House	+ (12%)	o	o	+ (16%)	+ (16%)	- (47%)	+ (40%)
Age	Age in years		- (0.2%)				- (1%)	- (0.8%)	+ (1%)
Number of children	Two	One					- (23%)	- (21%)	
	Three or more						- (38%)	- (31%)	
Number of children in kindergarten	Two or more	One					- (24%)	- (41%)	+ (74%)
Education	Vocational or secondary school	Primary school or no formal education		- (6%)	o	+ (14%)	+ (23%)	- (11%)	+ (17%)
	Higher school or university education			- (10%)	o	+ (33%)	+ (24%)	- (15%)	+ (20%)
Marriage status	Single parent	Married					- (38%)	- (57%)	+ (57%)
Earnings	Between 65 and 130 thousand SIT	Up to 65 thousand SIT		- (8%)	+ (10%)	+ (11%)	+ (18%)	- (21%)	+ (24%)
	More than 130 thousand SIT			- (7%)	- (15%)	+ (32%)	+ (31%)	- (20%)	+ (22%)
Employment	Self-employed or manager	Employed (in enterprise, public services...)	- (57%)						
	Other								
Sport activity of parents	Seasonal	Not occupied with sports					+ (25%)		+ (26%)
	Hiker			o	o	+ (20%)	+ (33%)		+ (20%)
	Recreational sportsmen			o	o	+ (36%)	+ (33%)		+ (21%)
	Organized			+ (9%)			+ (25%)	- (11%)	+ (19%)
	Unorganized								+ (22%)
	Several times yearly	Never					+ (14%)		
	1-3-times monthly						+ (22%)		
Several times weekly						+ (52%)			
Spending holidays	At the seaside		+ (17%)						+ (6%)
	Also at home		- (19%)						+ (10%)
	Also somewhere else			- (11%)	- (16%)	+ (34%)			+ (7%)
	Active	Passive	+ (14%)	- (12%)	+ (26%)	+ (26%)	+ (30%)	- (38%)	+ (39%)
Child's sociability	Sociable	Unsociable		- (7%)	o	+ (17%)	+ (23%)		+ (21%)
Child's opinion about the kindergarten	Likes to go	Does not like to go		- (7%)	o	+ (17%)	+ (22%)		+ (19%)
Accessibility of sport playing room	Not accessible	Accessible	- (18%)				- (16%)		
Parent's opinion about the influence of sport	Positive	Negative		- (6%)	o	+ (16%)			+ (18%)

dicators of sport activity, whereas other indicators influence others. However, there are some explanatory variables that have a significant effect on all the dependent variables.

The research results indicate primarily the following:

- Mothers care for children's sport activity more.
- Children who live in the urban environment are more sport active.
- Older and single parents devote more of their time for children's sport activities.
- Higher earnings and education of parents has a positive influence on children's sport activity.
- Children who live in a flat are on average more sport active.
- Active families stimulate children to be more sport active.
- Children who are more sociable are usually more sport active.
- Availability of a sport playroom represents a factor that increases children's sport activity.
- Parents' positive attitude towards the effect of sport on children's development encourages children to be more sport active.

Discussion

Based on this research, we can conclude that mothers are more concerned about children's sport activity. This confirms also Petrovič (1986) who established that mothers mainly prefer sport activity in a family environment, whereas fathers are mainly sport active with their friends.

Regarding the effect of the urban and rural environment, the results show that children from an urban environment are more sport active than their coevals from the rural environment. The environment a family lives in also has a significant effect. If a family lives in a flat and not in a house, a child is in all respects more sport active. Petrovič, Ambrožič, Sila, Doupona and Bednarik (2000) state that people from the urban environment are more active than those from the rural environment. The city environment itself forces children to play in a playground. Children are never alone there; there are always other children there, each with a toy or sport device such as a ball, roller-blades, a scooter, a bike, etc. The environment compels the child to be sociable; at the same time he or she gets acquainted

with different sport devices and sport requisites. Similarly, Petrovič et al. (2000) and Mihovilović (1974) are of the opinion that an urban environment stimulates sport activity.

Older parents devote more time to their children's sport activity, but are less likely to take them to an organized sport course. Such an outcome could be explained with a thought that older parents feel capable enough to educate children on their own, without having to sign their children to an organized sport course.

The social status of parents plays an important role. Parents with higher education and higher earnings are probably able to buy their children different sport devices. This way, children get to know them well and are more likely to show interest for numerous sport activities. Petrovič, Sila and Ambrožič (1989), Saksida and Petrovič (1972) and Mlinar (1977) have established similar findings as well. Videmšek (1996) has ascertained that a parent's level of education significantly relates to the method and form of children's sport activity. Among children whose parents have a lower level of education, a higher percentage is not involved in sport. Generally, they are also more involved in unorganised forms of sport activities. Videmšek (1996) has also established that the parents' level of education and their sport activity is significantly correlated with motor abilities of their three-year-olds, among which in particular manual skills prevail.

The research has shown that parents who are more active in sport (hikers, recreational athletes, and those involved in sport in an organised way) stimulate their children to be more sport active. The results have been expected; if parents are at least hikers or even recreational athletes, the probability that with their example they will influence their children is higher. Besides, these children get accustomed to spending their spare time more efficiently. Hikers and recreational athletes spend a lot of time outdoors. The nature offers a child many new experiences, exciting activities, such as orientation in nature, building shelters, the basics of climbing and other activities.

The way a family spends their holidays has an important effect on preschool children's sport activity as well. The place of holidays is not that important as is the quality and the way of spending it. If holidays are spent actively, it is more likely that children would be more sport active. Videmšek and Karpljuk (1999) have established that sport activity

of parents of three-year-olds is correlated with the way of spending weekends, winter and summer holidays that they spend as a family. Parents who are more sport active spend their summer and winter holidays and weekends more actively as well.

The finding that single parents devote more time for their child's (unorganised) sport activity is also relatively clear and logical. These parents are aware of their double role as a father and mother and feel obligated and responsible for their children. Usually single parents do not have a considerable amount of money, thus they cannot afford organised sports activity for their children; however they spend almost all of their free time with their children.

A child's sociability and his/her attitude towards the kindergarten have a similar effect on sport indicators. A sociable child and a child who likes to go to the kindergarten is involved in sport activities more and he/she would also more likely take part in an organised sport exercise. Besides that, the probability that parents would be prepared to send him or her to an organised sport weekend or week, if it was professionally organised and conducted, is higher.

With this research, we have ascertained that availability of a sport playroom is one of the significant factors for participating in a sport course. The research showed that a sport playroom is available to less than half of the families (48%). The fact is that far more parents would take their children to a sport playroom if it was available.

This research also confirmed a hypothesis that parents, who have a positive opinion about the effect of sport on a child's development, encourage their children to be more sport active. Being their models, their parents' opinion and behaviour is naturally very important and useful, far more than merely saying how good sport activity is and how harmful it is to sit in front of a computer or TV (Videmšek, Strah, & Stančević, 2001).

We believe that parents are becoming more aware of the real meaning of sport activity for their children. With this research we have established that some social and demographic factors exist which could not be directly affected. Nevertheless, there are also some factors, which could be directly influenced. Our aim is to stimulate a higher percentage of children to become active in sports. If children get used to being sport active in their early years, it is less likely they would give up sports when

they grow up. Petrović et al. (2000) have found for adults that »those who are used to regular sport activity, those whose sport is a regular and indispensable part of leisure, these will hardly and unwillingly give up this habit over the years.« The factors that parents can influence are their own sport activity, active holidays, stimulating children's sociability and a positive attitude towards sports.

Our further researches will be focused on additional detailed study of children's sport activity. With a larger sample we would be able to use more complex statistical methods and in this way form groups of explanatory variable(s) from a range of explanatory factors, and one or at the most two hybrid dependent variable(s), which would be common sport indicator(s). This would help us to get a better view on how individual factors influence children's sport activity.

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