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RESEARCH ARTICLE

Examining the Role of Parents in Enhancing Students' Motor Competencies

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Abstract

The present research was focused on exploring the impact of parenting styles on the increases in perceived motor competence in elementary school students. This descriptive-correlational survey design approach was used in this applied research. The target population consisted of male and female elementary school students in Tehran. However, using the cluster random sampling and the G*Power software, 172 students were used as the study sample. The data collection took place with the help of two standardized tools. Baumrind's Parenting Style Questionnaire (Permissive, Authoritarian, and Authoritative styles) as well as the Physical Self-Description Questionnaire developed by Marsh (1992) – the dimension of perceived motor competence. One-way analysis of variance (ANOVA) and the Scheffé post hoc test were used to analyze data in SPSS version 26, whereas independent t-tests were conducted to compare IBMIT and MAT analysis. The significance level for all statistical tests was taken as 0.05. There was found to be a significant difference as concerns perceived motor competence among the varied parenting style groups (Sig < 0.05). Scheffé test showed that children of permissive parents have higher scores (Level of perceived motor competence) compared to children with authoritative parents (mean difference = 4.506, Sig < 0.05). There were no other important differences found. In addition, the independent t-test revealed that boys indicated significantly higher perceived motor competence as compared to girls mean difference = -4.829, Sig < 0.001). On the whole, the results indicate that the parenting style and student gender are two effective predictors of children's perceived motor competence. Such results form a basis for the creation of family-centered educational interventions for promoting physical activity and motor self-representation in children.

Keywords: Parenting, Parents, Motor Competence, Students.

Introduction

Motor competence, which includes basic movement skills including jumping, running, throwing, catching, balance, and agility, is regarded as one of the basic building blocks of childhood development. Their primary motor skills are the base for the more complex physical activities during adolescence and adulthood. They have been widely reported to encourage a healthy lifestyle, keeping a desirable weight, providing mental wellness, and even bettering one's academic performance (1, 2). Essentially, not only does motor competence serve as an indicator of a child's physical development, but it is also closely related to psychological constructs, namely self-

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efficacy, self-confidence, and motivation for movement (3). Kids who do not possess those skills do not want to play in a group game or sport, and they may fall into a chain of continuous physical inactivity, lack of physical ability, and untimely development of metabolic and psychological disabilities.

Parents, who are the first and the most critical socializing agents, among several influences on children's motor development, play a central part in establishing and fostering their children's motor competence. Parental influence takes place in two main routes: behavioral modeling and emotional/environmental support. According to Bandura's Social Learning Theory, observation and imitation are the key ways of learning (4). Children learn from emulating what their parents do; therefore, when parents lead an active lifestyle, do regular exercises, and join physical activities, they encourage the children to copy them. Apart from this, supportive and encouraging parents provide a psychologically safe and motivating environment that promotes enhanced motor participation and involvement in their children (5).

These findings have been supported by many empirical studies. For example, in a systematic review, Dirks and colleagues revealed that children aged between 3 and 12 years old, who have grown up in a supportive social environment, perform better on the motor skill assessment. They preached the necessity of social motivation, active adults in the child's setting, and coherent families in the development of motor skills (3). Such findings are in line with the results of Ferreira et al., who found that the environmental factors, namely, the size of open spaces at home, access to play equipment, and parents' attitudes towards physical activity, are the significant predictors of motor performance in elementary school children (4). On the other hand, when parents are not involved in the promotion of their children's motor behaviors, emotionally or practically, then the children end up having a decline in the level of physical abilities and a decrease in the level of physical activity. According to a study carried out by Niemistö et al in Finland, children of parents who resorted to passive parenting fared worse in motor skill assessment. Such discovery indicates the significant role of emotional support, active supervision, and supplying practice opportunities for the part of the parents as the factors impacting motor competence (3). Apart from the psychological and environmental factors, the culturally and socially embedded family is another dimension of parents' influence. Incidentally, many societies, especially the more traditional ones, have often placed more restrictions upon physical activity for girls. Such a difference may result in uneven development of motor skills. In a study in China, He and his group did find that parental support (directly in play or indirectly in terms of providing space and equipment) and attitudes of the parents towards gender differences did have a significant impact on motor skill development. Such findings stress the significance of educating and increasing parents' awareness about providing equal opportunities for motor development among children of different genders (1).

Several studies have also examined the effect of parent-focused educational interventions.

Stevenson et al., in a review of 14 studies, reported that those interventions in which the parents became more engaged, including participation in practice sessions with their child, providing the children with positive feedback, and encouraging practices, led to improvements in the children's motor skills (2). On the same line, a meta-analysis on early childhood motor education programs by Van Capelle and colleagues indicated that the involvement of families enhanced the effectiveness of instruction by 35%. Such findings emphasize the need to establish family-oriented educational interventions and school-based and home-based efforts to advance motor development (3). Laukkanen et al also reported that the children's motor perception -that is, the way children perceive their physical abilities – is very much affected by parental feedback (3). Whenever parents praise their children, do not take failure seriously, and highlight what is done correctly, a positive motor self-concept is strengthened. On the other hand, overcritical parents and parents who restrict physical practice opportunities may help to lower motor motivation in children. In terms of educational planning, researchers have proposed that schools should actively involve parents as stakeholders in equal programs in motor education. Parent workshops organization, instructional booklets distribution, and facilitation of home-based physical activities in schools are some of the approaches utilizable in enhancing the consistency between the home and classroom settings when pursuing motor child development (4).

Correspondingly, the purpose of research works like the current one is to identify and outline the role of the family (especially parents) in the motor development of children. Successful interventions in this area can not only lead to the physical growth of children but also to mental health, self-esteem, social participation, and academic accomplishment. In conclusion, there is increasing scientific evidence that suggests that there are four major ways through which parents affect their children's motor skill development. Behavioral modeling, emotional support, availability of physical resources and practice opportunities, and motivational encouragement. Thus, the studies that can discover and describe these mechanisms in detail can provide hands-on conclusions for educational planners, P.E. instructors, and child health policymakers.

Research Design

This work is considered as applied research by its objectives since it is aimed at revealing the role of parents in developing the motor competence of students and developing the instructions for families, schools, and education policymakers. From the point of view of data collection, the study used a descriptive-correlational survey design – the researcher had studied the relations between the variables of interest without experimenting. Furthermore, the research is a cross-sectional one as data were collected at a particular point in time.

Participants

The present study had a population that included male and female elementary school–going students in schools across Tehran. From a significance level of 0.05 and statistical power of 0.80, as well as a medium

effect size (f= 0.25), the sample size required for this study was estimated to be about 159 participants using G*Power software. To adjust for possible attrition of data, the final sample size was enhanced to 172 students.

Research tools

1. Baumrind Parenting Style Questionnaire

   This is an instrument that is based on Baumrind's theory of parental authority, which classifies parenting into three styles. Permissive, authoritarian, and authoritative. There are 30 items included in the questionnaire, whereby 10 items for each parenting style. It has been modified to evaluate the patterns of parental influence, and it was used in the previous studies, and its reliability was confirmed (13–15).

2. Perceived Motor Competence Subscale of the Physical Self-Descriptio Questionnaire (Marsh, 1992)

   To evaluate perceived motor competence in this study, the first version of the Physical Self-Description Questionnaire (PSDQ) created by Marsh (1992) was used. This is an instrument that is used to assess different aspects of people's physical self-concept. The questionnaire has nine major subscales under which the respondents can give their perceptions on their physical abilities and characteristics. The most important of the subscales is perceived motor competence, which is people's subjective definition of their skills to complete physical movements, such as balance, coordination, and motor control (16).

Data Analysis

In the part of descriptive statistics, the mean was among the measures used to characterize demographic characteristics and principal variables of the study. To apply inferential statistics and to test the research hypotheses, one-way analysis of variance (ANOVA) was used to test whether there were significant differences in perceived motor competence scores in parents with different styles of parenting. When the value of (p) indicated statistical significance in ANOVA, the Scheffé post hoc test was used to determine specific groups of means that differed. Also, independent samples t-tests were used while comparing the means of only two independent groups. All the analyses of statistics were conducted using SPSS version 26 with a $p \leq 0.05$ significance level.

Results

The sample in this study consisted of 172 elementary school students (83 boys and 89 girls (Figure 1). As per the parenting style of participants' parents, 52 cases were found to have a permissive parent type, 108 had an authoritarian parent type, and 12 had an authoritative parent type (Figure 2). For the variable of perceived motor competence, the range was from a minimum score of 22 to a maximum of 41, with a mean of 32.97 and a standard deviation of 4.81.

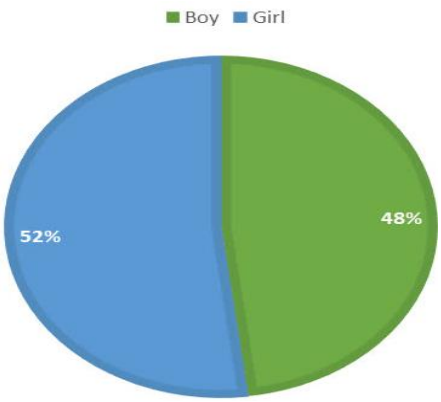

Chart 1: Distribution of Students' Gender

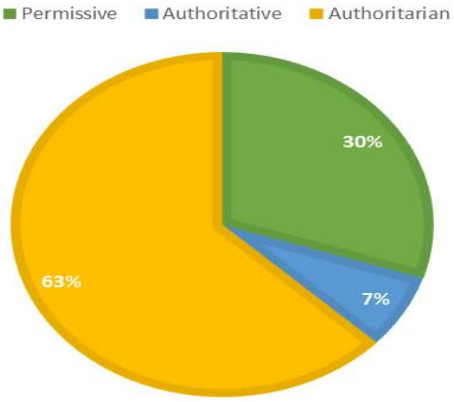

Chart 2: Distribution of Parenting Styles of Students

The analysis of data was made with the help of SPSS software. The mean values of perceived motor competence for students with permissive, authoritarian, and authoritative parents were 34.42, 32.61, and 29.92, respectively (Figure 3).

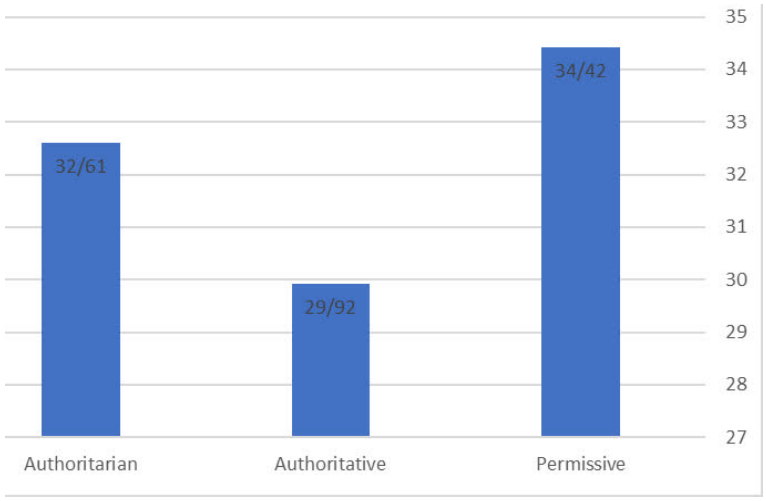

Chart 3: Average Motor Competence of Students by Different Parenting Styles.

To find out whether the differences in the means of perceived motor competence among students of different parenting styles were significant, a one-way ANOVA was used. The results obtained at the beginning were significantly different for the groups ($p < 0.05$) (Table 1). To establish that the groups differed significantly, a Scheffé post hoc test was done. The results revealed that permissive parents' students were found to have significantly higher motor competence scores (mean difference in score = 4.506, $p < 0.05$) than the authoritative parents' students. There were no other statistically significant

differences with the rest of the groups (Table 2).

Table 1: One-Way ANOVA Results; Comparison of the Effect of Parenting Style on Children's Perceived Motor Competence

	Sum of Squares	Degrees of Freedom	Mean Square	F	P
Between Groups	235.579	2	117.790	5.341	0.006*
Within Groups	3727.276	169	22.055		
Total	3962.855	171			

*Statistical significance was set at $p < 0.05$.
Significant values are indicated by*

Table 2: Scheffé Post Hoc Test Results; Comparison of the Effect of Parenting Styles on Children's Perceived Motor Competence

Parenting Style		Mean Difference	Standard Deviation	P Value
Permissive	Authoritarian	1.812	0.793	0.076
	Authoritative	4.506*	1.504	0.013*
Authoritarian	Permissive	-1.812	0.793	0.076
	Authoritative	2.694	1.429	0.172
Authoritative	Permissive	-4.506*	1.504	0.013*
	Authoritarian	-2.694	1.429	0.172

*Statistical significance was set at $p < 0.05$.
Significant values are indicated by*

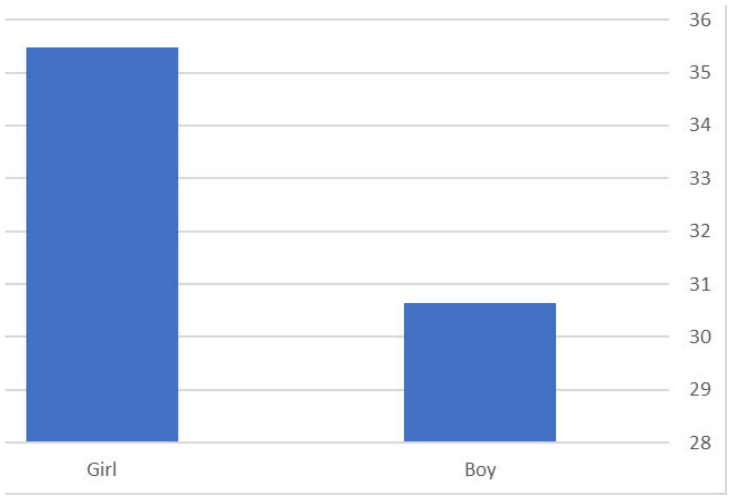

Chart 4: Average Motor Competence of Students by Different Parenting Styles.

The average perceived motor competence value for the female and male students was 30.64 and 35.47, respectively (Figure 4). To determine the difference between the two conditions statistically, it was put through the independent samples t–test. The results revealed that the male students' perceived motor competence score was much greater than that of the females ($p < 0.001$; mean difference = -4.829). In other words, gender seems to be an important factor in the prediction of students' levels of motor competence (Table 3).

Table 3: Results of Independent Samples T-test; Comparing the Effect of Gender on Students' Perceived Motor Competence

	F	P	T	Mean Square	P	Difference in Means
Assumption of Equal Variances	1.505	0.222	-7.583	170	<0.001*	-4.829
Assumption of Unequal Variances	3962.855	171	-7.643	165.955	<0.001*	-4.829

*Statistical significance was set at $p < 0.05$.
Significant values are indicated by*

Discussion and Conclusion

The results of the present study showed that the style of parenting does have an important effect on students' perceived

motor competence. According to the ANOVA test, the differences between the groups were meaningful, and the post hoc Scheffé test revealed that motor competence levels were significantly higher among students from permissive parents than from authoritative parents. Upon a first observation, this outcome may seem to be opposite to the common expectations since the authoritative style is, as a rule, perceived as the most productive style of upbringing. If, however, permissive parenting is adopted and allowed to be in a form that gives the children more freedom for movement, playing, or environmental exploration, then it may be indirectly helpful in enhancing their motor development.

In this respect, the study conducted by He et al. in China revealed that the kind of parental support, being direct or indirect, is significant in the development of motor skills. From such a view, the permissive form of parenting could be more favorable for free motor experiences since space and exercise equipment could be given while control is minimized. On the other hand, despite the greatly organized and helpful nature of the authoritative style, it can, in certain instances, limit the motor freedom of the kids, particularly when combined with high expectations or pressure to deliver (1). On the other hand, the absence of substantial difference between the style that is authoritarian style and other styles of parenting might indicate the shortcomings of this approach for enhancing the competency of the motor. The usual connotations of this style include extreme control, decreased autonomy of children, and absence of positive interaction.

Another striking result obtained from this study indicated that boys had performed much better than girls in perceived motor competence. This effect is statistically significant and is in line with many previous studies that indicate that boys have more chances for physical activity, and it is more socially encouraged to be active among boys. The study by The et al. also explicitly declared that the parental attitudes towards gender differences may prove decisive in forming motor opportunities. When parents (consciously or unconsciously) view physical activity as an activity that is more appropriate for boys, girls are being denied equal opportunities for motor development. In this regard, Stevenson et al.'s study also highlights the fact that active involvement of parents, such as the ones that include encouragement, positive feedback, or even undertaking physical activities with a child, can cause substantial improvements in motor skills. These results indicate that, independent of the style of parenting, the quality of interaction between parents and children and the degree of parental involvement are of great importance (1). Moreover, Van Capelle et al., in the meta-analysis, showed that family participation in the motor program may enhance the efficiency of training by up to 35%, thus calling for the design of family-centered programs (2). Additionally, the study by Luukkonen et al. points out the relevance

of the perceived motor competence. Children with a more positive picture of what their physical capabilities are possess more incentive to participate physically. This perception is highly influenced by the feedback of parents. When parents do not take failures seriously while exalting the success of their children, they promote desirable motor development in their children. On the other hand, styles of parenting that are too critical or controlling will result in decreased motivation and physical self-confidence in children (3).

According to the results of the current study, those children who have permissive parents possess better motor competence than children of the authoritative parents. However, findings generated by the study undertaken by Hirani et al. (2023) contradict the findings of the present study. Although they also replicated the major weight of parenting style on children in their motor abilities, they indicated that the children of authoritarian and permissive parents had below-par motor competence while the children of authoritative (democratic) parents were characterized by higher motor competence (1). In a decision that is partially congruent with but not completely averse from the present effort, Nazarpouri et al. (2018) in their finding established that children with authoritative or permissive parents had more advanced motor skills than those whose parents were authoritarian (2). In addition, gender became a pre-eminent conservator of motor competence in the present research. As indicated by the results of a few studies conducted earlier, such gender differences in physical skill development are emphasized (3).

The result of the present study revealed that parenting style and gender are two factors that significantly influence the development of children's perceived motor competence. Such results show the necessity to include in the planning of interventions intended for the improvement of motor skills, schools, as well as families. Parental education, decreasing gender biases, and facilitating a positive and non-judgmental style of interactions with children can have tremendous effects on their physical health and motor development.

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