Abstract

The purpose of this study was to examine the relationship between positive parenting and motor skill development in preschool-aged children. Motor skill development is an important aspect in childhood development. A sample size of 100 parents and their children was collected. A quasi-experimental design was used to gather information on parenting styles and what influence it has on gross motor development in children. An observation of gross motor development occurred using an observation list. A parenting style questionnaire was given to parents in order to determine what parenting styles they practiced. The study found a positive relationship between positive parenting and gross motor skill development. These findings can be used for parents to develop a parenting style that will benefit their children’s gross motor development. (134)

 *Keywords:* preschool-aged children, positive parenting, gross motor development

Parenting Styles and Gross Motor Development

in Relation to Preschool-Aged Children

 Parenting styles have been a widely studied topic throughout child development research. There has been extensive research on attachment and parenting, however there have been difficulties when finding cause-effect-links between specific behaviors children have, and the way they were parented (Cherry). There are many types of parenting styles; the parenting style of focus will be positive parenting. Positive parenting can also be compared to warm and authoritative parenting. Positive parenting is defined as an approach to understand the relationship between parents and children. It is based on mutual respect and gives the child the chance to develop in a non-violent constructive way. There are many different aspects of positive parenting such as; praising good behavior, setting rules, listening, working together, and not using physical punishment as a means to discipline (Respects works out). Parenting drastically effects the development of a child, but more specifically what effect does it have on the development of motor skills, particularly in preschool aged children? One first needs to assess studies that have previously been conducted on parenting styles, then the research that has been studied on motor development in children

 In one study, the effects of positive parenting were examined using as intervention based program in order to promote the use of positive parenting. Included in the study were preschool aged children and their parents. Families were randomly put into intervention groups or control groups. The parents were mailed questionnaires and were told to complete them before and after the nine week intervention. The program consisted of weekly two hour sessions. During the intervention parents were asked to set rational goals for their child and their own behavior. The results indicated that the Triple P Positive Parenting, a cognitive behavioral program (the intervention), had a significant reduction in behavior problems. Parents who were given the intervention reported that they had a significant increase in the quality of the attachment with their children, and had a decrease in the use of dysfunctional parenting practices. Dysfunction practices included; laxness (permissive parenting) and verbosity (over reprimands). Overall, there was a significant effect on improvement in the following; relationships between children and parents attachment, behavior problems, and parenting styles. However the study relied on the parents filling out questionnaires. Observations could have proven very helpful, since the study depended solely on parent perceptions. Further research is needed to acquire long term effects of the intervention (Wiggins, 2009).

 In a Youtube video, Dr. Christine Carter emphasizes the importance on positive parenting. Her focus is on teaching the parents that it is good to let their children have unstructured imaginative play. She speaks about how play has been linked to helping children learn to regulate emotions and behaviors as well as benefit children’s motor development. She also refers to the amount of play children are involved in comparison to how much play children used to do in the 1920’s. The lack of play has been correlated with the self regulatory capacity of preschoolers. Parents can use play as a means to strengthen their relationship and bond with their children (Carter 2009).

 In an empirical study, Piek (2006) examined whether or not there is a relationship between motor coordination, emotional regulation, and internalizing behaviors in preschool-aged children. The participants included kindergarten children, who attended a school in Western Australia. Children’s motor ability was assessed using the McCaron Assessment of Neuromuscular Development, which evaluates motor skills through a specified system. The Emotional Recognition Scales measured children’s empathy using three subscales. Another measure used was the FET Scale which consisted of 32 items that measured speed and accuracy of facial emotional recognition. The Emotional Vocabulary Test measured the children’s ability to define emotion words, and the Emotional Comprehension Test measured children’s ability to understand emotional consequences. For example; how a child would feel if they got a bike as a present. Results indicated children who demonstrated anxious or depressed behaviors also had negative associations with their motor skills.

 Giagazoglou (2005), found that motor development, where the child is raised and their mothers’ education are correlated. The study involved highly educated mothers (HEM) and formally educated mothers (FEM) who were from urban and rural areas. Results indicated that children in urban communities had higher hand eye coordination than rural children, while rural children had higher locomotor (gross motor) skills than urban children. Regarding maternal education, children of HEM had higher motor skill quotients for both locomotor and hand-eye coordination (Giagazoglou et al., 2005).

 Handal (2007), examined the relationship between residency and motor development of preschool-aged children. Community A and B were considered high risk of pesticides, while community C was considered at a lower risk. When the two communities were compared results indicated that the low exposure communities were associated with developmental delays in all five of the developmental domains. Evidence shows that residency may have an effect on the development of children, regardless of economic status. The children in high exposure communities showed even higher rates of developmental delays. High exposure children showed stunted gross motor skill development (Handal et al., 2007).

 According to Shirley’s Preschools, children learn motor skills through lots of practice. Gross motor skills involve balancing, body awareness, crossing of the midline, laterality, major muscle coordination, and spinal orientation. Encouraging children to move around and practice development these motor skills is mentioned multiple times. According the article parents need to be active when it comes to teaching their children motor development. Examples of how parents can improve their children’s motor skills are listed. One demonstration was asking a child to stand on one foot for ten seconds (Shirley’s preschool activities).

 The purpose of this study was to examine the relationship between positive parenting and motor skill development in preschool-aged children. There have been an abundance of studies and research on preschool-aged children and their social and emotional well being, as well as research on motor development in preschoolers. However, little research has been conducted on the effect parenting can have on motor development in preschool-aged children. The hypothesis for this study is, preschool children whose parents use positive parenting behaviors are more likely to have increased gross motor development compared with children whose parents do not use positive parenting.

**Overview**

 The purpose of this study was to examine the relationship between positive parenting and the effect it has on motor development in preschool children. The research design used in this study was quasi-experimental because the groups naturally existed together. The independent variable was positive parenting and the dependent variable was motor skill development. To measure positive parenting a parenting measure was used. A score was given which put parents into a positive parenting style or a not positive parenting style. To measure gross motor development the an observation checklist was used. It consisted of 21 observed gross motor development behaviors. The level of measurement for both variables was **ordinal** because a likert-scale was used.

**Procedures**

 Before beginning the study, Institutional Review Board approval was obtained from the California State University at Chico. To recruit the sample approval was also obtained from Northern California preschool directors. Three schools were involved in the study. The preschool teachers administered informational packets for the students to bring home to their parents that described the purpose and procedures of the study. After getting consent from the parents they were then mailed a parenting style measure, and a demographic measure which was to be completed and sent back. Parents were notified that all information was confidential and kept in a locked filing cabinet. Five observations occurred, at the children’s school during class activities and free play. The teachers were given the list of gross motor behavior which was incorporated into their daily routines. The possible benefits for the study was, that if the results indicated that positive parenting did effect the children’s motor development, parents may wish to change their parenting style. There were no incentives provided.

**Participants**

The study consisted of 100 preschool children and their parents. The sampling technique used was non-probability. The parents that practiced positive parenting behavior included 26 females (51%) and 25 males (49%). The age range for positive parents was 24-35 years old with a mean age of 29.3. There were 16 Caucasian parents parent’s, 22 African Americans and 13 Hispanics. For the parents who were not positive parents, there were 23 females (46.9%) and 26 males (53.1%). They ranged in age from 24-35 and had a mean age of 29.4. There were 20 Caucasians, 13 African Americans and 16 Hispanics. The children whose parents practiced positive parenting consisted of 26 females (51%) and 25 males (49%). The range of age was three-five with a mean age of four. For the children who did not have parents that practiced positive parenting, 24 were female (49%) and 25 were male (51%). They were also between the ages of three and five with a mean age of four.

**Materials**

 Participants were given existing scales to measure parenting styles and gross motor development. The Parenting the Preschooler measure was adapted, eight of the questions were eliminated. A likert-scale was added from 1-7. One, meaning strongly agree and seven meaning strongly disagree. Four of the questions were reverse coded. An example of one of the questions was, children should be allowed their own sense of individuality. The parent would then circle the number they felt fit their opinion best. Items were summed to a obtain a score. Higher values reflected more positive parenting. To measure gross motor development an existing measure was used and adapted by adding a fixed response scale from 0=never, 1=sometimes and 2=always. An example of one of the behaviors on the list of gross development was, children alternate feet to climb short flights of stairs but still mark time on longer flights of stairs. The children were rated on; if they could perform a task, and if they did, how many times it occurred. Higher item values were summed to obtain a score. Higher scores reflect higher motor development.

**Results**

 The purpose of this study was to assess the relationship between positive parenting and the effect it has on motor development in preschool-aged children. Given the hypothesis the, appropriate statistical test was an independent t-test. This t-test was appropriate because the study involved group difference questions. There were 51 parents practicing positive parenting styles, while 49 parents did not. In the positive parenting group results for children’s gross motor development ranged from 16-42, with a mean of 35.69 and a SD of 5.57. In group 2 parents who did not practice positive parenting, children’s gross motor development ranged from 12-33 with a mean of 21.57 and a SD of 4.65. The specified alpha level was .05. An alpha level at .05 suggests that the probability that these results occurred by chance is less than 5%. Alpha is defined as . The probability level for this test was less then the alpha level of .05 which indicates that the test was statistically significant.

 **Discussion**

 The results of this study found that there was a strong positive relationship between positive parenting and gross motor development. Children who experience positive parenting were more likely to have a higher level of gross motor development. On the other hand, children who experienced a parenting style that was not positive had a negative relationship between parenting and gross motor development. In other words those children who did not receive positive parenting did not develop as many gross motor skills as those who did receive positive parenting. The independent t-test indicated that the test was statistically significant. Thus, the hypothesis was supported.

 Given the above information, it is important for parents to be aware of the parenting style they are practicing. The information can be used by parents and educators to adapt in a way that could benefit children’s motor skill development.

 One strength of the study was the confidentiality of the parenting style questionnaire. The parents were left feeling comforted knowing that there answers were going to be kept in a locked filing cabinet only for the researchers to see. Another strength of the study was the results. Parents who did not practice positive parenting were able to see the importance of it and could possibly adjust their parenting style accordingly.

 A limitation to the study was the small sample size. There were only 100 participants, which is not a very large sample. For further research, getting more participants involved would be beneficial in creating even stronger results. Another limitation is that the sample consisted only of Northern California parents and their children. A suggestion would be to have a more diverse amount of participants from different geographic regions to see if the results vary. An implication of research would be to examine whether or not mother’s or father’s parenting styles effect the outcome of children’s motor development more so than the other.

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General Parameters of Typical Motor Development\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**LOCOMOTOR/BODY PROJECTION SKILLS**

*Walking, Running, and Jumping\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

Children easily walk or run a straight path before a circular or curved one.

Children progress from a stage of aided to jumping along with one foot in front of the other, to

 jumping alone with a two-foot propulsion.

Children pass through the same progression as noted above at each height from which a jump is

 attempted.

Children execute jumps from lower heights before attempting jumps from higher heights.

Children jump down from something before they jump onto something.

*Hopping, Skipping, and Galloping\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

Children gallop before they hop or skip.

Children hop on both feet prior to the development of a true hopping movement on one foot.

Skipping progresses from a shuffle to a skip on one foot to skipping on alternate feet.

*Climbing*

Marking time (both feet placed on rung or step before next step is attempted) precedes alternation of feet in climbing.

Use of alternating feet appears first in ascending skills, later in descending skills.

Children will ascend a set of stairs or object before they will descend it.

Children acquire proficiency in climbing a short flight of stairs or a ladder with the rungs close

 together before they gain proficiency in climbing a long flight of stairs or a ladder with

 the rungs father apart.

**BALL-HANDLING/OBJECT CONTROL SKILLS**

*Throwing\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

Children progress from anteroposterior plane movement to horizontal plane movement.

There is a progression from an unchanging base support (body fixed in space) to a changing base of support (an appropriately timed transference of weight).

There is a progression toward shorter periods of acceleration; that is, the necessary joint actions occur in shorter periods of time, thus, aiding in increased force of development.

At any given age, children throw a smaller ball farther than a larger one.Here we have some basic information we need you to fill out. Please circle or fill in the blanks the best answer that fits.

1. I am Female/Male

2. I am \_\_\_\_ years old.

3. My Race/Ethnicity is \_\_\_\_\_ A. Caucasian

 B. Hispanic

 C. African American

 D. Asian or Asian American

 E. Other

Thank you for taking the time to answer these questions, please be sure to double check that you wrote down the responses the best fit. Thank you for your participation, if you have any questions please feel free to write them down on this page.