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Time Spent in Various Activities and Cognitive Abilities of School Going and Non School Going Children in Migrant Labour Families

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ABSTRACT

The present study was conducted to find out the correlation between time spent in various activities and cognitive abilities of school going and non school going children in migrant labour families. A sample of 120 mother-child dyads including children between 6-8 yr of age and mothers working as domestic servants, were purposively selected from each chosen locality through snowball technique. Children were approached to assess their cognitive abilities. Results revealed that school children's extended involvement in play activities enhanced their quantitative and motor skills but declined their verbal, memory and general cognitive ability. Long involvement of non school going children in play significantly increased their verbal, motor, quantitative, memory and general cognitive ability. Children's of migrant families spent more time in play activities which enhance their motor abilities but declined perceptual ability.

Key Words : Correlation, Cognitive abilities, Migrant labour families

INTRODUCTION

The cognitive development is the child's ability to learn and solve problems and also construction of thought processes, including remembering, problem solving and decision-making, from childhood through adolescence to adulthood. Cognition is, therefore, a very broad term that covers a complicated mental process involving such functions as perception, learning, memory, and problem solving. Time is a practical convenience in modern life and also an observed phenomenon by means of which human beings sense and record changes in the environment and in the universe.

Migration is a complex process that can produce profound changes for individuals, families and societies. It is a physical movement by humans from one area to another, sometimes over long distances or in large groups. The labour migrants are less interested in agricultural activities, either within the state or outside. They have shifted from agricultural operations in rural Punjab and Haryana to construction activities in Delhi and urban Bihar as well as factories in small-town Punjab. The movement from the poor states to the big cities makes it necessary for the women to join the workforce and to go out to earn for meeting their basic needs. The majority of the women in the economically weaker, migrant families work to help their families to make both ends meet, leaving their small children behind. Because economic conditions of these families do not allow them to put their child into any day care facilities, the children keep wandering aimlessly in or away from the neighborhood. People who migrate are called migrants; migrant workers are the backbone of both industry and agriculture in Punjab. Therefore, a study was conducted to find our correlation between time spent in various activities and cognitive abilities of school going and non school going children in migrant labour families

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Table 1. Correlation between times spent in various activities and cognitive abilities of school going children.

Sr. No.	Activity	Cognitive Ability					
		Verbal	Perceptual	Quantitative	Memory	Motor	General
1.	Play	0.132	-0.045	0.251**	-0.159	0.387***	0.122
2.	Market Work	0.132	0.110	0.148	0.168	0.045	0.167
3.	Household chores	-0.196	0.203	0.076	-0.162	0.180	0.046
4.	Personal care	0.041	0.007	0.031	-0.181	-0.246	0.063
5.	Academic	0.133	0.028	0.050	0.376***	-0.389***	0.047
6.	TV viewing	-0.154	-0.367***	0.071	0.151	-0.338***	-0.136
7.	Family	-0.221	-0.033	-0.004	-0.099	-0.381***	-0.263**

MATERIALS AND METHODS

The study was taken in six slum localities of Ludhiana city. Six slum localities were selected from the selected zone and 120 children with age range of 6 to 8 yr and mothers working as domestic servants, were purposively selected from each chosen locality through snowball technique. In the total sample, children were composed of two groups on the basis of their school attendance including attending school (n=60) and not attending school (n=60). The children were selected keeping in view that the child should be belonging to the family migrated from Uttar Pradesh, in the age between 6-8 yr and mother working as domestic servant.

Research Instruments

Time use patterns of children of migrant families were examined by using a self structured interview schedule. The reliability of the instrument was judged through test-retest method and was calculated to be 0.79.

McCarthy Scales of Children's Cognitive Abilities (MSCA)

Children's cognitive abilities were assessed by using McCarthy Scales of Children's Cognitive Abilities (MSCA). Mean reliability of McCarthy Scale of Children's Cognitive Abilities MSCA ranges from 0.79 to 0.88. Scoring of MSCA was done as per the guidelines given in the manual of MSCA.

Statistical Analysis of the Data

Correlation between time spent in hours in various activities and cognitive abilities of school going and non school going children of migrant labour families were calculated separately for both the groups.

RESULTS AND DISCUSSION

The results (Table 1) revealed that children's time spent in play activities was significantly positively correlated with their quantitative ($p<0.05$) and motor ($p<0.01$) skills which reflects that school going children's longer involvement in play activities improved their quantitative and motor skills. Cognitive, social, and emotional skills have the biggest impact on pretend play development, with motor and sensor motor skills that enable the child to manipulate objects in the environment having a secondary role. The correlations between children's time spent in play and verbal abilities and his general cognitive index was although non-significant but positive whereas perceptual abilities and memory were negatively correlated with time spent in play. It reflects that again child's longer involvement in play slightly fostered their verbal abilities and general cognition whereas it declined their perceptual and memory abilities which was contrary to the findings by Goldstein (2012) who evaluated that children who show the highest levels

of play involvement and complexity score high on various assessments of cognitive functioning and good communication abilities.

Time spent in household chores was non-significantly correlated with all the cognitive abilities but the relationship was positive with perceptual, quantitative, motor and general cognition whereas the correlation was negative between time spent in household chores and verbal and memory abilities of school going children. Child's time spent in personal care was non-significantly correlated with all the cognitive abilities however the association as negative correlated in their memory and motor abilities. It reflects that longer involvement in personal care going to suppress the motor and memory abilities of children.

Time spent in academic work significantly improved memory ($p<0.01$) whereas it declines motor skills of the sample. Number of hours spent in T.V viewing was negatively correlated with verbal, perceptual, motor and general cognition but the relationship was significant with perceptual abilities ($p<0.01$) and motor skills ($p<0.01$). It may be concluded that children viewing television for longer time showed poorer perceptual, motor, verbal and general cognition abilities. The result was supported by Vandewater and Schmidt (2008) who revealed that only high-quality educational television programs seem to have positive effects for children's learning, academic skills, and academic engagement and their cognitive development. Child's involvement with the family was significantly negatively correlated with general cognition ($p<0.01$) and motor abilities ($p<0.01$) of school going children.

The data (Table 2) show that the time spent in play was significantly positively related with all the cognitive abilities except perceptual abilities. Perceptual abilities were also positively correlated with play hours though the relationship was non-significant. When the data calculated on time spent in market work, and cognitive abilities, it reflects that non school going children's involvement in market work was significantly positively correlated with all the cognitive abilities. It means non school going children's participation in play and market work tends to improve their cognitive abilities. The correlation between time spent in household chores was significant and positive with memory ($p<0.01$) and motor ($p<0.01$) abilities whereas it was non-significant and negative with all other rest abilities. Children who spent time in the household chores possessed better memory and motor skills but showed poorer & negative with verbal, perceptual, quantitative & general cognitive index. TV viewing was negatively non significantly correlated with all the cognitive abilities of non school going children. Number of hours spent in personal care significantly improved their verbal ($p<0.01$) & memory ($p<0.01$) but significantly declined their motor ($p<0.01$) & general abilities ($p<0.01$).

The data (Table 3) interpret the correlation between time spent in various activities and cognitive abilities of children of migrant families. It shows that time spent in academic activities was highly significantly associated with all the cognitive abilities except motor ability. It interprets that longer involvement of children in academic related activities going to decline their motor abilities. Time involvement in playing significantly going to increase the motor ($p<0.01$) ability of children of migrant labour families. Besides motor ability, children of migrant labour families' cognitive abilities were non significantly but positively correlated with time spent in play related activities. Market was directly and significantly positively correlated with memory ($p<0.01$) and motor ability ($p<0.01$). Time spent in household chores and personal care activities were negatively correlated with verbal, quantitative, and general cognitive index. Motor ability was significantly and positively correlated with time spent in household chores ($p<0.01$) and personal care ($p<0.01$) both. Time spent with family going to increase significantly their verbal ($p<0.01$) ability. The results were in continuation with the findings of the Rowlands and Okein (2010) which indicated that

Table 2. Correlation between times spent (hrs.) in various activities and cognitive abilities of non-school going children of migrant labour families

Sr. No.	Activity	Cognitive Ability					
		Verbal	Perceptual	Quantitative	Memory	Motor	General
1.	Play	0.302**	0.104	0.300**	0.642***	0.642***	0.328***
2.	Market Work	0.341***	0.256**	0.336***	0.629***	0.644***	0.420***
3.	Household chores	-0.249	-0.016	-0.175	0.428***	0.446***	-0.218
4.	Personal care	0.447***	-0.101	-0.226	0.397***	-0.279**	-0.359***
5.	TV viewing	-0.143	-0.170	-0.141	-0.082	-0.114	-0.199
6.	Family	-0.144	0.013	-0.026	0.105	0.102	-0.076

Table 3. Correlation between times spent (hrs.) in various activities and cognitive abilities of children of migrant labour families.

Sr. No.	Activity	Cognitive Ability					
		Verbal	Perceptual	Quantitative	Memory	Motor	General
1.	Academic	0.676***	0.668***	0.546***	0.403***	-0.368***	0.768***
2.	Play	0.136	0.009	0.187	0.136	0.253**	0.132
3.	TV viewing	-0.175	-0.251**	-0.100	-0.035	-0.223**	-0.217
4.	Market Work	0.017	-0.037	0.056	0.355***	0.399***	-0.029
5.	Household chores	-0.175	0.028	-0.063	0.311***	0.365***	-0.085
6.	Personal care	-0.094	0.002	-0.034	0.277***	0.298***	-0.051
7.	Family	0.433***	- 0.345***	-0.275***	-0.126	-0.167	-0.429***

there is a great significance of verbal, nonverbal and communication activities on the cognitive and developmental stages and adapting to the specific needs of infants, children and teenagers.

CONCLUSION

It may be concluded that school going and non-school going children's involvement in play significantly improved their quantitative and motor abilities. Longer involvement of school going children in academic, TV viewing and with family significantly going to decrease their motor ability. Number of hours spent by non-school going children in personal care significantly improved their verbal and memory but significantly negatively correlated with their motor and general cognition. Long participation in play improved the cognitive abilities of children of migrant labour families. Child's time spent in the family as beneficial for their verbal abilities whereas it was detrimental for perceptual, quantitative and general abilities.

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