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## Influence of social-skills on development of social-cognition among pre-schoolers

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### Abstract

Social cognition concerns young children's knowledge of themselves, other people and the groups to which they belong. A study was conducted to know the development of social-cognition among urban and rural pre-school children and influence of child factors on social-cognition among pre-school children. Sample comprised of 94 pre-school children from 4 Anganwadis from four villages and 86 children from 4 Anganwadis from urban areas of Dharwad Taluk were selected, so total sample comprised of 180 pre-school children. Theory of Mind Inventory by Hutchin *et al.*, (2014) was used to assess the social-cognition among children and social-skills scale by Greshman and Elliot (1990) was used to assess the social-skills among children. On analysis results revealed that, urban children had better social-cognition as compared to rural children. Children with good social-skills and interactive peer-play behavior had good social-cognition than children with average and disruptive peer-play behavior. A study result indicates the immediate early intervention program on development of social-cognition in rural areas.

**Keywords:** Social-cognition, pre-school children, social-skills

### Introduction

Pre-school period offers a critical window of opportunity to shape the trajectory of a child's holistic development and build a foundation for their future. The development of important mile stones in the area of, emotional, language, behavioral and social-cognitive skills takes place primarily in early year of life. These foundational skills are not only important for a successful transition to school, but also for later social adjustment. Promoting and developing social-cognition skills along with strengthening families are important ways to improve long term outcomes for children. The process by which children understand their social worlds is a topic of increasing interest to developmental researchers. A central component of this developmental process is children's understanding of mental states and how they contribute to behavior known as 'social-cognition'. It relates to the emotional and cognitive processes required to assimilate the cognitive and behavioral patterns of other persons. Social cognition has been defined as the ability to construct representations of the relations between one-self and others and to flexibly use of those representations to guide social behavior. It can thus be considered as the sum of cognitive processes required for social interactions (Adolphs, 2003)<sup>[1]</sup>. Social cognition concerns young children's knowledge of themselves, other people and the groups to which they belongs. It encompasses a variety of interpersonal domains including an individual's knowledge, perception, attitudes, and behavior in relation to social situations. During child's preschool years, they'll discover a lot about themselves and interacting with people around them. Once they reach age two, child will be much less selfish than they were before. At this age actually play with other children, interacting instead of just playing side by side. In the process, they'll recognize that not everyone thinks exactly as they do and that each of their playmates has many unique qualities, some attractive and some not. As they create these friendships, children discover that they, too each have special qualities that make them likable that gives a vital boost to child's social-cognition. Shakoor *et al.* (2012)<sup>[15]</sup> highlighted that, abilities involved in social-cognition development are essential to a child's socialization and interaction, as well as for school adaptation in the first years of life. When children acquire these skills they become more adept at decoding social cues and in modeling behavior in order to interact with their social environment more satisfactorily. Social cognition develops as children gain greater experience with social interactions. Children who have developed social-cognition can negotiate social interactions by taking the perspective of others, anticipating others' intentions and understanding their needs

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(Slomkowski and Dunn, 1996) [17]. From a theoretical perspective, social-skills have important implications for children's social-cognition development. Thus, children's knowledge of false-belief, coupled with understanding of the association between belief and behavior, may influence children's social skills. Higher social cognitive capacities are typically associated with prosocial skills whereas difficulties in understanding and thinking about others' mental states can lead to disruptive social functioning and increase the risk of major mental health problems. Hence the study was carried out with following objectives, to know the development of social-cognition among urban and rural pre-school children and to study the influence of social-skills on development of social-cognition among pre-school children.

### Material and Methods

Differential research design was employed, to study the development of social-cognition among urban and rural pre-school children and correlation design was also employed to know the relationship between social-cognition and social-skills of pre-schoolers.

The target population of the study were the mother-child dyads with children in age group of 2-6 years residing in Dharwad taluk of Karnataka. Out of 119 villages, four villages were randomly (in four different directions so as to represent entire taluk) selected and one Anganvadi from each village was selected to form the rural sample. Total 96 children were randomly selected from 4 Anganwadis and from four villages. The urban sample collected from four randomly selected Anganwadis from urban locality of Dharwad city (from different directions, which represent the population). So total 86 children were selected from 4 Anganwadis from four areas of Dharwad city.

The social-cognition was assessed using Theory of Mind inventory developed by Hutchins *et al.*, (2014) [10], which consists of total 42 items with 5 point likert scale, designed to tap a wide range of social cognitive understandings. It is care giver rated and used for the children's of age group 2-6years. The scale format uses answering ranging from definitely not, probably not, undecided, probably and definitely with a score of 1,2,3,4 and 5 respectively. The respondent is asked to read the statement and tick the appropriate one. Higher the score indicates the higher social cognition. The total scores categorized as low (42-70), average (71-140) and high (141-210).

Social Skills Rating System for parents (SSRS-P) by Gresham & Elliott (1990) [9] used for comprehensive assessment of social skills among preschool children. It is parental questionnaire which consists of 30 items and scored on a 3-point scale with scoring of '0'-never, '1'-sometimes and '2'-very often. The categorization of score is as average social-skills (0-30) and Good social-skills (31-60).

The Penn Interactive Peer Play Scale (PIPPS) by Fantuzzo, *et al.*, (1995) [6] was used to assess the peer-play behavior of children. It is a 32-items behavioral rating instrument useful for understanding peer play behaviors of preschool children. The scale examines how often the behavior has been observed during free play at home context. It contains 32 items with four-point Likert-scale. i.e., never, seldom, often and always with a score of 0, 1, 2 and 3 respectively. The items assess competencies within play to identify children who demonstrate successful peer play interactions (Interactive) and those children who experience difficulties with peer play (Disruptive) and categorized as disruptive peer-play behavior

(0-48) and interactive peer-play behavior (49-96).

Frequency and percentages were used to interpret the age, gender, ordinal position and social-cognition among urban and rural high school students. t-test was used to know the differences in social-cognition among urban and rural areas and Chi-square was used to know the influence of age, gender, ordinal position on social-cognition among urban and rural pre-school children.

### Results and Discussion

#### Social-cognition among urban and rural pre-school children

The Association and difference between levels of social-cognition among urban and rural pre-school children was presented in Table 2. Result showed that, among both urban and rural locality majority children were belonged to average level of social-cognition. Among high level of social-cognition majority children were from urban locality, among low level of social-cognition majority children were from rural locality. On statistical analysis the 'chi square' value found to be significant. The mean score of urban children with regard to levels of social-cognition was found to be high (98.17) compared to mean score of rural locality children (81.97) and 't' value found to be significant between levels of social-cognition and locality. Astington and Edward (2010) [3] pointed out that, environmental factors such as disciplinary strategies and conversations with family influence the development of social-cognition. Aslan and Emen (2019) [2] also in-line with the same results that, there is significant difference found between the urban and rural locality on social-cognition. Rural children having low level of social-cognition compared to urban children. Children's social-cognition absolutely depend on reasoning is provided when correcting their misbehaviors during their conversations with their mothers about their thoughts, desires, and emotions. While social-cognition develops further in children whose mothers talk with them about causes and effects of behaviors and events, punishment behaviors without explanation have a negative impact on the development of children's social-cognition by causing insufficient stimulation. (Sigman *et al.*, 2013) [16].

#### Social-skills influencing pre-school children social-cognition

Results pertaining to association and comparison between social skills and social cognition among urban and rural pre-school children observed in Table 2. With respect to average cooperation among urban locality, majority (53.49%) of children belonged to average level of social cognition followed by low level (44.1%) and high level (2.33%). With regard to good cooperation, majority (53.49%) of children belonged to average level of social cognition followed by high level (41.86%) and low level (4.65%) of social cognition. However, there was significant association found between levels of cooperation and levels of social cognition among urban pre-school children. On comparison of mean value good cooperation level was high as compared to average level. With regard to average assertion, majority (44.23%) of children belonged to average level of social cognition followed by high level (34.62%) and low level (21.15%). In case of good assertion category, majority (67.65%) belonged to average level of social cognition followed by low level (29.41%) and high level (2.94%) of social cognition. However, there was no significant

association and difference observed between levels of assertion and levels of social-cognition among urban pre-school children. When average self-control is considered, majority (62.50%) of children belonged to average level of social cognition followed by low level (35.71%) and high level (1.79%). In case of good self-control, majority (60%) had high level followed by average level (36.67%) and only 3.33 per cent had low level. However, there was significant association and difference found between levels of self-control and levels of social cognition among urban pre-school children. Mean value indicated that, those who belonged to good self-control had high level of social cognition as compared to average level.

Among rural locality, results regarding to average cooperation, majority (90%) of children belonged to low level of social cognition followed by high level (6.67%) and average level (3.33%). In case of good cooperation category, 73.44 per cent had average level of social cognition followed by high level (18.75%) and 7.81 per cent had low level of social cognition. However there was significant association and difference observed between levels of cooperation and levels of social cognition among rural pre-school children. On comparison of mean value children belonged to good cooperation had high level of social cognition as compared to average level. In case of average assertion category, majority (51.22%) of children belonged to average level of social cognition followed by low level (36.59%) and high level (12.20%). Among good assertion category, majority (50.94%) of children belonged to average level of social cognition followed by low level (32.08%) and 16.98 per cent had high level of social cognition. However, there was no significant association and difference observed between levels of assertion and levels of social-cognition among rural pre-school children. With respect to average self-control category, 93.75 per cent had low level of social cognition and 6.25 per cent had high level of social cognition. In case of good self-control, majority (77.42%) belonged to average level of social cognition followed by high level (19.35%) and low level (3.23%). However, there was significant association found between levels of self-control and levels of social-cognition

among rural pre-school children. On comparison of mean value those who belonged to good self-control had high level of social cognition as compared to average self-control. Similarly Pepe *et al.*, (2018)<sup>[12]</sup>, Sorongon and Ziv (2011)<sup>[18]</sup> and Decety *et al.*, (2015)<sup>[5]</sup> also reported that, significant association and difference between social-skills and social-cognition among children. Children with ability to build positive relationships and to behave effectively in social contexts will have high level of social-cognition and they exhibit a higher frequency of prosocial behaviour. Blair and Razza (2007)<sup>[4]</sup> opinioned that, children who were reported to be more cautious about others feelings were more involved in social-skills. Children with a better understanding of others' thoughts and feelings will be more socially competent than other children and they were self-control.

**Peer-play behavior influencing pre-school children social-cognition**

Results pertaining to table 3 showed that, association and comparison between peer play behavior and social cognition among urban and rural pre-school children. With respect to low level of social-cognition, majority of children belonged to disruptive play behavior followed by interactive play behavior. With regards to average and high level of social-cognition, majority of children belonged to interactive play behavior followed by disruptive play behavior.

However, chi square showed that, there was significant association was found between peer play behavior and social-cognition among urban pre-school children. On comparison of mean scores interactive peer play behavior children had high level of social cognition as compared to disruptive play behavior. Similar results were observed by, Finney and David (2020), Shakerian (2011)<sup>[14]</sup>, Meece (1990)<sup>[11]</sup> and Gil and Adar (2006) found that, social cognition was positively related to children's interactive play behavior and negatively related to disruptive behavior. Pritchard *et al.*, (2002)<sup>[13]</sup> stated that, peer interactions are critical for socio-cognitive development due to the symmetry of power and knowledge which enables children to be more active in the relationship.

**Table 1:** Association and comparison between levels of social-cognition among urban and rural pre-school children

Locality	Levels of social-cognition				Modified $\chi^2$	Mean $\pm$ SD	t-Value
	Low	Average	High	Total			
	n (%)	n (%)	n (%)	n (%)			
Urban	21 (24.42)	46 (53.49)	19 (22.09)	86 (100)	11.36*	98.17 $\pm$ 7.64	2.97**
Rural	32 (34.04)	48 (51.06)	14 (14.89)	94 (100)		81.97 $\pm$ 6.48	
Total	53 (29.44)	94 (52.22)	33 (18.33)	180 (100)		124 $\pm$ 12.39	

N= 180

Figures in the parenthesis indicates percentage

NS- Non-significant

**Table 2:** Association and comparison between social-skills and social-cognition among urban and rural pre-school children by social-skills

Locality	Components	Categories	Levels of social cognition				Modified $\chi^2$	Mean $\pm$ SD	't' value
			Low	Average	High	Total			
			n (%)	n (%)	n (%)	n (%)			
Urban n= 86	Co-operation	Average	19 (44.19)	23 (53.49)	1 (2.33)	43 (100)	13.21**	60.36 $\pm$ 2.12	3.69**
		Good	2 (4.65)	23 (53.49)	18 (41.86)	43 (100)		67.01 $\pm$ 3.02	
	Assertion	Average	11 (21.15)	23 (44.23)	18 (34.62)	52 (100)	5.63 <sup>NS</sup>	61.09 $\pm$ 1.23	0.23 <sup>NS</sup>
		Good	10 (29.41)	23 (67.65)	1 (2.94)	34 (100)		62.74 $\pm$ 2.03	
	Self-control	Average	20 (35.71)	35 (62.50)	1 (1.79)	56 (100)	10.52*	60.36 $\pm$ 3.15	2.15*
		Good	1 (3.33)	11 (36.67)	18 (60.00)	30 (100)		67.01 $\pm$ 1.03	
Rural n= 94	Co-operation	Average	27 (90.00)	1 (3.33)	2 (6.67)	30 (100)	11.25*	60.03 $\pm$ 3.06	4.32*
		Good	5 (7.81)	47 (73.44)	12 (18.75)	64 (100)		65.01 $\pm$ 1.20	

N=180

Assertion	Average	15 (36.59)	21 (51.22)	5 (12.20)	41 (100)	2.30 <sup>NS</sup>	60.36±3.68	0.25 <sup>NS</sup>
	Good	17 (32.08)	27 (50.94)	9 (16.98)	53 (100)		65.01±4.12	
Self-control	Average	18 (56.25)	10 (31.25)	4 (12.50)	32 (100)	12.45*	65.36±3.01	0.56 <sup>NS</sup>
	Good	10 (16.12)	40 (64.51)	12 (19.35)	62 (100)		66.32±1.01	

Figures in the parenthesis indicates percentage  
NS- Non-significant

**Table 3:** Association and comparison between peer-play behavior and levels of social-cognition among urban and rural pre-school children

N=180

Locality	Levels of peer play behavior	Levels of social cognition				Modified $\chi^2$	Mean ± SD	t-Value
		Low	Average	High	Total			
		n (%)	n (%)	n (%)	n (%)			
Urban n= 86	Disruptive	16 (41.03)	16 (41.03)	7 (17.95)	39 (100)	14.36*	70.29±9.54	6.32**
	Interactive	5 (10.64)	30 (63.83)	12 (25.53)	47 (100)		76.86±8.39	
Rural n= 94	Disruptive	25 (43.86)	29 (50.88)	3 (5.26)	57 (100)	12.58**	81.61±12.04	3.58*
	Interactive	7 (18.92)	19 (51.35)	11 (29.73)	37 (100)		75.04±10.68	

Figures in the parenthesis indicates percentage

**Conclusion**

The present study focused on influence of child related factors on social-cognition among urban and rural pre-school children. Majority of urban and rural pre-school children had average level of social-cognition. Children with good cooperation and self-control were better at social-cognition. Children who had interactive peer-play behavior showed better social-cognition than children with disruptive peer-play behavior. So there is a need for early intervention on development of social-cognition as pre-school is critical period of child development. So, there is need to create room for social-skills and social-interaction through games and tasks as social-cognition is absolutely depends on social-skills and social-interaction.

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