

Influence of quality home environment on social and emotional development of children attending early childhood care and education [ECCE] centers

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Abstract: A study was conducted in University of Agricultural Sciences, Dharwad, Karnataka state during the year 2017-20 to know the influence of quality home environment on social and emotional development. Study included 208 children of age between 3-6 years, attending ECCE centers such as anganwadis and private nursery school in rural and urban areas. Transdisciplinary Play Based Assessment-2 tool was used to assess the social and emotional development of children. Home Observation for Measurement of the Environment scale was used to assess quality of home environment of the selected children. Observation was made during children involved in free play through video recording which was complemented with participant observation. Results revealed that majority of the children in both rural and urban anganwadis belonged to 'watch' (below average) and 'concern' (poor) category of social and emotional development. The significant association was found between quality home environment and social and emotional development of children. Children with high quality home environment found to be significantly higher on social and emotional development and its domains such as emotional expression, emotional style/ adaptability, regulation of emotions and arousal states, behavioral regulation, sense of self, emotional themes in play and social interaction in both rural and urban anganwadis and preschools. As more than half of the children in both rural and urban anganwadis belonged to 'watch' (below average) category of social and emotional development hence there is need to improve social and emotional development of the children by improving the quality home environment and ECCE center environment through play-based learning activities in their classroom and home by the teachers and parents in both rural and urban areas.

Key words: Anganwadi, Assessment, Home environment, Socio-emotional

Introduction

Social and emotional development is the development of being able to form and sustain positive relationships, experience, manage and express emotions. Through this development children start to understand who they are, what they are feeling and what to expect when interacting with others. The first six years of life are critical years of human life since the rate of development in these years is more rapid than at any other stage of development. Global brain research also informs us about the significance of early years for brain development.

Children learn through play which is central to the child's wellbeing and development. Children's spontaneous play provides opportunities for exploration, experimentation, manipulation and problem solving that are essential for constructing knowledge. Play contributes to the development of representational as well as abstract thought. Children engage in various kinds of play, such as physical play, language play, object play, pretend or dramatic play, constructive play, and games with rules. In ECCE, well-trained caregivers, low staff-child ratios and parent involvement are generally considered to be fundamental to high-quality care and education. Such elements not only promote strong, secure relationships and positive interactions between caregiver and child, but also improve attention to children's interest, problem-solving, language development, social skills and physical development.

A young child's home environment plays a key role in determining his or her chances for survival and development. Optimal conditions include a safe and well-organized physical

environment, opportunities for children to play, explore and discover, and the presence of developmentally appropriate objects, toys and books. Within the home, caregivers are tasked with establishing a safe, stimulating and nurturing environment and providing direction and guidance in daily life. Interactions with responsible caregivers who are sensitive and responsive to children's emerging abilities are central to social, emotional and cognitive development. This type of nurturing care can help children feel valued and accepted, promote healthy reactions, provide a model for acceptable social relationships and contribute to later academic success. So, with this background, a need was felt to assess the social and emotional development of rural and urban children attending early childhood care and education centers and to know the influence of quality home environment on social and emotional development of rural and urban children.

Material and methods

Differential design was employed to know the social and emotional development and quality home environment of children attending ECCE centers such as private pre school and anganwadis in rural and urban areas.

The population of the study was children from 3-6 years attending ECCE centres such as private pre school and anganwadis in rural and urban areas of Dharwad taluk.

Selection of the sample: Children in the age group of 3-6 years were selected for the study based on teacher's report of

children’s regularity in attending the pre school. The total sample comprised of 208 children (104 from rural and 104 from urban schools).

Selection of pre schools: In urban area out of 63 private pre schools and 160 anganwadis, self-structured tool was used to select the private pre schools and anganwadis, which were following play-based activities in the classroom. Among these eight private pre schools (12 %) and 16 (10 %) anganwadis were found to use the play-based activities. In the rural area of Dharwad taluk, six villages were selected randomly based on the presence of private pre schools and anganwadis which were convenient to commute and screen the ECCE centres adapting play-based learning. The private pre schools in rural and urban area were matched based on the self-structured checklist where they were employing ten out of fifteen play-based activities. Similarly, the anganwadis in rural and urban area were selected where they were following at least five activities out ten of play-based activities. Among them two villages were selected based on teacher’s co-operation and consent to observe and record videos during the conduct of play-based learning activities. Total of four private pre schools and four anganwadis were selected from both rural and urban areas.

Child’s social and emotional development was assessed using Trans Disciplinary Play Based Assessment-2 tool developed by Linder (2008) which consists of seven statements under the domains such as emotional expression, emotional style/ adaptability, behavioral regulation, emotional regulation, sense of self, emotional themes in play and social interactions. Each statement of social and emotional development of the children is observed during free play activity and recorded through videos. Based on the play activities performed between the selected children is analyzed and scored between 1-9 score of social and emotional skill. Based on the obtained scores children were categorized as above average (49-63), typical/average (35-48), watch/below average (21-34) and concern/poor (7-20).

Home Observation for Measurement of the Environment (HOME) scale was used to assess quality of home environment. It consists of 55 items, each item is scored either 1 or 0, which includes sub scales such as learning materials, language stimulation, physical environment, responsivity, academic stimulation, modeling, variety and acceptance. Based on the total score quality of home environment s categorized as high quality (37-55), medium quality (18-36), low quality (0-17).

Results and discussion

Distribution of children in type of ECCE centres in rural and urban area

The results in the Table 1 highlights, distribution of children in type of ECCE centres in both rural and urban areas. The results revealed that children are equally distribute d in both private pre schools and anganwadis in both rural and urban areas.

Table 1. Distribution of children in type of ECCE centers in rural and urban areas

Type of ECCE centers	N=208	
	Rural(n=104)	Urban(n=104)
Private pre schools	52 (50.00)	52 (50.00)
Anganwadis	52 (50.00)	52 (50.00)

Social and emotional development of anganwadi and pre school children in rural and urban areas.

The findings from Table 1a indicated that the association of type of school and social and emotional development of children in rural and urban areas. It was found that in rural areas the type of school and levels of social and emotional development of children was significantly associated with each other ($\chi^2 = 60.48$) at 1 per cent level of significance. It was observed that among children in rural area, most of the children in anganwadis fell under watch (65.38 %) category of social and emotional development, 34.62 per cent fell under concern level of social and emotional development and none of the children from anganwadis belonged to typical level of social and emotional development.

Among children with attending pre schools, majority (69.23%) of them belonged to typical level of social and emotional development and 30.76 per cent of children belonged to watch level of social and emotional development. Considering urban area type of school and levels of social and emotional development of children was significantly associated with each other ($\chi^2 = 32.39$) at 1 per cent level of significance. It was observed that among children in urban area, most of the children in anganwadis fell under watch (59.62 %) category of social and emotional development, followed by 26.92 per cent fell under concern and 13.46 per cent of children fell under typical level of social and emotional development. Among children attending pre schools, majority (61.53%) of children belonged to typical level of social and emotional development and 38.47 per cent of children belonged to watch level of social and emotional development.

Table 1a. Association between type of ECCE and social and emotional development in rural and urban areas

Social and emotional development	Rural (104)		χ^2	Urban (104)		χ^2
	Anganwadi (n=52)	Pre school (n=52)		Anganwadi (n=52)	Pre school (n=52)	
Typical	-	36 (69.23)	36.48**	38 (73.07)	32 (61.53)	32.39**
Watch	34 (65.38)	16 (30.76)		20 (38.47)	14 (26.93)	
Concern	18 (34.62)	-		-	-	
Total	52 (100)	52 (100)		52 (100)	52 (100)	

**Significant at 0.01 level

Results in Table 1b revealed that the comparison of social and emotional development of children by type of school in both rural and urban areas showed the significant difference (18.84) and (9.19) at 0.01 per cent level of significance. The difference value explained that children attending pre schools had significantly higher scores on social and emotional development (36.13) as compared to children from anganwadis (22.04) in rural and (26.38) in urban area.

Table 1b. Comparison of mean scores of social and emotional development in rural and urban areas

Locality	Type of ECCE centre	Mean ± S.D	t-value
Rural	Anganwadi	22.04 ± 3.44	12.84**
	Pre school	35.13 ± 4.14	
Urban	Anganwadi	24.38 ± 6.42	16.19**
	Pre school	36.13 ± 4.14	

**Significant at 0.01 level

Results in the Table 1c showed that comparison of domains of social and emotional development of children by type of school in both rural and urban area showed significant difference under domains of social and emotional development i.e emotional expression, emotional adaptability, regulation of emotions, and arousal states, behavioral regulation, sense of self, emotional themes in play and social interaction. The difference value explained that children attending pre schools scored higher mean scores than children attending anganwadis under the domains of social and emotional development, i.e emotional expression (5.23), emotional adaptability (5.19), regulation of emotions and arousal states (5.15), behavioral regulation (5.19), sense of self (4.90), emotional themes in play (5.00) and social interaction (5.46).

In case of urban area the difference value showed that children attending pre schools scored higher mean scores than children attending anganwadis under the domains of social and emotional development, i.e emotional expression (5.28), emotional adaptability (5.29), regulation of emotions and arousal states (5.25), behavioral regulation (5.31), sense of self (4.89), emotional themes in play (5.05) and social interaction (5.65).

It was observed that, though the anganwadis are provided with stimulating play materials, they are rarely used by the children as the materials were not given by the teacher to play because in anganwadis the play materials are insufficient with class size and teacher may not be able to give attention to each

child during activity. So, may be due to poor quality of environment, where anganwadis programs give less importance to play activities. Though anganwadi teachers undergo trainings on using play materials and its importance on child’s development, they fail in implementation of the play-based learning in their classroom.

Under the domains like emotional expression, emotional adaptability, emotional regulation, behavioral regulation, sense of self, emotional themes in play and social interaction, the difference was found, which may be due to the less activities given to the child. The results of the present study are in line with the Wangui (2013) who evidenced that the type of play materials, availability of play materials to the children and providing the play materials children has positive effect on social and emotional development of the pre school children. Murundu *et al.* (2014) also found that interaction of play in early childhood education curriculum by teachers promotes learning. Wathu (2016) revealed that there was a strong positive correlation between availability of play materials and social skills development of children in pre-schools. There was a significant association between play time and children social emotional development and there was a strong positive correlation between presence of the teacher in children’s play and children’s social emotional skills development. Yildirim and Akamca (2017) found out the outdoor play activities improved cognitive, linguistic, social-emotional and motor skills of pre school children. The children’s linguistic skills significantly improved after the outdoor play activities. The children had significantly better social-emotional skills after the outdoor play activities was implemented.

Distribution of quality of home environment of children in anganwadis and pre schools in rural and urban areas

With regard to quality of home environment, 53.84 per cent of children in rural anganwadi were belonged to low quality home environment and 46.16 per cent of children were belonged to moderate level quality home environment category Table 2. In case of pre schools 59.62 per cent of children were belonged to high level quality home environment and (40.38 %) of children were belonged to moderate level quality home environment. In urban locality (57.69 %) of children in anganwadis belonged to moderate level quality of home environment and 42.31 per cent of children belonged to low level quality of home environment.

Table 1c. Comparison of mean scores of domains of social and emotional development in rural and urban areas N=208

Domains	Rural (n=104)			Urban (n=104)		
	Anganwadi	Pre school	t-value	Anganwadi	Pre school	t-value
	Mean ± S. D	Mean ± S. D		Mean ± S. D	Mean ± S. D	
Emotional expression	3.09 ± 0.77	5.23 ± 0.87	13.16**	3.76 ± 0.94	5.28 ± 0.87	8.19**
Emotional style/adaptability	3.92 ± 0.62	5.19 ± 0.97	14.19**	3.61 ± 1.08	5.29 ± 0.97	7.80**
Regulations of emotions and arousal states	3.11 ± 0.61	5.15 ± 0.99	12.54**	3.75 ± 0.83	5.25 ± 0.99	7.77**
Behavioral Regulation	3.19 ± 0.56	5.19 ± 0.86	13.99**	3.80 ± 0.92	5.31 ± 0.86	7.86**
Sense of Self	3.00 ± 0.65	4.90 ± 0.77	13.52**	3.73 ± 1.01	4.89 ± 0.77	6.64**
Emotional Themes in Play	3.00 ± 0.56	5.00 ± 0.65	16.70**	3.55 ± 1.16	5.05 ± 0.65	7.79**
Social interaction	3.71 ± 1.03	5.46 ± 0.93	9.03**	4.15 ± 1.25	5.65 ± 0.93	6.00**

**Significant at 0.01 level

In case of pre schools 69.24 per cent of children belonged to high level quality of home environment and 30.76 per cent of children belonged to moderate level quality of home environment (Table 2).

Influence of quality of home environment on social and emotional development of anganwadi and pre school children in rural and urban areas.

The findings from Table 2a indicated that association of quality of home environment and social and emotional development in both rural and urban anganwadi and pre school children. It was found that the quality of rural home environment of anganwadi children and levels of socio-emotional development of children was significantly associated with each other at 0.05 per cent level of significance. It was observed that among children in rural anganwadi, equal per cent (50.00 %) of the children with low quality home environment fell under watch and concern category of social and emotional development. Children in medium quality home environment, majority (83.33 %) of children belonged to watch category and 16.67 per cent of children belonged to concern category of social and emotional development of children. The significant association was found at 0.05 per cent level.

In case of rural pre school children, with high quality home environment, majority (83.87) of them belonged to typical category of social and emotional development and 16.13 per cent of them belonged to watch category. Children in medium quality home environment more than half (52.39 %) of them belonged to watch category and 47.61 per cent of them belonged to typical category of social and emotional development.

In case of urban pre school children, with high quality of home environment, majority (66.66 %) of them belonged to typical category of social and emotional development and 33.34 per cent of them belonged to watch category. Children in medium quality home environment equal (50.00 %) of them

belonged to watch category and typical category of social and emotional development.

Results in Table 2b depicted that, comparison of quality of home environment and social and emotional development. With regard to rural anganwadi, children with medium quality home environment scored higher (22.62) mean score than children with low quality home environment. The difference found to be significant. In case of rural pre school children also the significant difference was found between children with high quality home environment and children with low quality home environment. The differential value explained that, children with high quality environment scored higher mean scores (37.25) compared to children with low quality home environment on social and emotional development.

Outcome of comparison of quality of home environment and social and emotional development is presented in table 2c. With regard to urban anganwadi, children with medium quality home environment scored higher (24.68) mean score than children with low quality home environment. The significant difference was found between medium quality and low quality home environment. In case of urban pre school children also the significant difference was found between children with high quality home environment and children with low quality home environment. The differential value explained that, children with high quality environment scored higher mean scores (37.27) compared to children with low quality home environment on social and emotional development.

This may be due to poor quality home environment, the children received poor stimulation and less opportunity to explore new things, as parents had poor knowledge and awareness on quality environment. Low quality home environment like lack of availability of play materials, poor parental involvement in the activities of the child, poor language stimulation, less responsively of the parents, poor academic

Table 2. Distribution of quality of home environment of children in rural and urban anganwadis and preschools.

Quality of Home environment	Levels	Rural		Urban	
		Anganwadi	Pre school	Anganwadi	Pre school
	High	-	31 (59.62)	-	36 (69.24)
	Moderate	24 (46.16)	21 (40.38)	30 (57.69)	16 (30.76)
	Low	28 (53.84)	-	22 (42.31)	-
	Total	52 (100)	52 (100)	52 (100)	52 (100)

Table 2a. Association between quality of home environment and social and emotional development in rural and urban area N=208

Locality	Social and emotional development	Anganwadi (n=104)			Pre school (n=104)		
		Medium	Low	χ^2	High	Medium	χ^2
Rural	Typical (Average)	-	-	2.36*	26 (83.87)	10 (47.61)	7.72*
	Watch (Below Average)	20 (83.33)	14 (50.00)		05 (16.13)	11 (52.39)	
	Concern (Poor)	04 (16.67)	14 (50.00)		-	-	
	Total	24 (100)	28 (100)		31 (100)	21 (100)	
Urban	Typical (Average)	-	-	7.68*	24 (66.66)	08 (50.00)	5.56*
	Watch (Below Average)	28 (93.33)	10 (45.45)		12 (33.34)	08 (50.00)	
	Concern (Poor)	02 (6.67)	12 (54.55)		-	-	
	Total	30 (100)	22 (100)		36 (100)	16 (100)	

Figure in parentheses indicates percentage

*Significant at 0.05 level

Table 2b. Comparison of mean scores of social and emotional development by quality of home environment in rural area N=208

Locality	Quality of home environment	Anganwadi		Pre school	
		Mean ± S.D.	t-value	Mean ± S.D.	t-value
Rural	High		2.19*	37.25 ± 4.21	2.49*
	Medium	22.62 ± 2.71		34.47 ± 3.53	
	Low	20.67 ± 3.46			
Urban	High		3.49*	37.27 ± 6.17	2.35*
	Medium	29.83 ± 5.54		33.06 ± 5.45	
	Low	24.68 ± 4.19			

*Significant at 0.05 level

Table 2c. Comparison of mean scores of domains of social and emotional development by quality of home environment in rural area N=208

Locality	Domains	Anganwadi (n=104)			Pre school (n=104)			
		Medium (24) Mean ± S. D	Low (28) Mean ± S. D	t-value	High (31) Mean ± S. D	Medium (21) Mean ± S. D	t-value	
Rural	Emotional expression	3.37 ± 0.76	2.85 ± 0.70	1.53	5.35 ± 0.91	5.04 ± 1.80	1.45	
	Emotional style/ adaptability	3.52 ± 0.53	2.75 ± 0.64	1.99*	6.45 ± 0.96	4.80 ± 0.87	2.24*	
	Regulations of emotions and arousal states	3.20 ± 0.65	3.03 ± 0.57	1.00	6.35 ± 1.05	4.85 ± 0.85	2.92*	
	Behavioral Regulation	3.43 ± 0.48	3.07 ± 0.60	1.19	6.35 ± 0.91	4.45 ± 0.74	2.91*	
	Sense of Self	3.20 ± 0.58	2.82 ± 0.66	1.09	4.93 ± 0.85	4.85 ± 0.65	0.33	
	Emotional Themes in Play	3.20 ± 0.50	2.82 ± 0.54	1.62	5.16 ± 0.73	4.76 ± 0.43	1.29	
	Social interaction	4.16 ± 0.86	3.32 ± 1.02	2.18*	6.64 ± 0.91	4.19 ± 0.92	2.24*	
	Urban	Emotional expression	4.26 ± 0.73	2.09 ± 0.85	1.98	5.11 ± 0.94	4.12 ± 0.82	1.19
		Emotional style/ adaptability	4.16 ± 0.91	2.86 ± 0.83	2.45*	5.25 ± 1.2	4.56 ± 0.81	2.18*
		Regulations of emotions and arousal states	4.16 ± 0.83	3.18 ± 0.39	1.80	5.19 ± 1.06	4.62 ± 1.14	2.26*
Behavioral Regulation		4.23 ± 0.89	3.22 ± 0.61	1.67	5.41 ± 1.05	4.37 ± 0.61	3.67*	
Sense of Self		4.16 ± 0.91	3.13 ± 0.83	0.35	5.25 ± 1.02	4.37 ± 1.02	1.08	
Emotional Themes in Play		4.13 ± 1.04	2.77 ± 0.81	1.23	5.16 ± 1.18	4.43 ± 1.03	1.12	
Social interaction	4.70 ± 1.26	2.40 ± 0.79	2.54*	5.88 ± 1.94	4.56 ± 1.15	2.07*		

status of the parents, inappropriate modeling may be the reason for low social and emotional development of the children. Results are in line with study Dowsett *et al.* (2008) who reported that, children in high quality of home environment exhibited lesser negative interactions with caregivers and peers and positive social skills and emotional behavior with caregivers and peers. Also, in line with the study Pinto *et al.* (2013) wherein the hierarchical linear models revealed that home environment, pre school environment and quality of home environment were directly and significantly associated with child social and emotional development.

Conclusion

In both rural and urban anganwadis majority of the children observed to be in the ‘watch’(below average) and ‘concern’

(poor) category of social and emotional development. The significant association difference was found between type of ECCE centers and social and emotional development of children. There was also significant association found between quality of home environment and social and emotional development of children. Children with high quality home environment found to be significantly higher on social and emotional development and its domains in both rural and urban of anganwadis and pre schools. Hence, there is need to improve social and emotional development of the children by providing the quality home environment and ECCE center environment through using play-based learning activities in the classroom and home by the teachers and parents in both rural and urban areas.

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