J. Farm Sci. Spl. Issue 29(5): (735-738) 2016

Socio-emotional development of rural infants of Northern Karnataka

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(Received: August, 2016 ; Accepted: November, 2016)

Abstract: Socio-emotional development of rural infants was studied on a sample of 192 infants drawn equally from three age cohorts; 6-12 months, 13-18 months, 19-24 months. The sample was drawn from three districts of North Karnataka where in from each district two taluks were randomly selected and from each selected taluk, two villages were randomly selected. Socio-emotional development was measured by using Social/Emotional sub-scale of Bayley Scale of Infant and Toddler Development (BSID-III, 2006). One-way ANOVA was used for testing differences in socio-emotional development indices by gender and age cohorts and t-test was applied to test the differences between infants of the three districts. The results revealed that majority (65%) of the infants had average socio-emotional development indices while 26 per cent of them had high level and nine per cent of them had low level of socio-emotional development. There was significant difference between gender on socio-emotional development indices where in female infants were significantly higher than the male infants. However, there was no significant difference between the age cohorts as well as between the infants of the three districts on socio-emotional development. As the majority of the infants had average/low socio-emotional development, there is a need for parent education program in order to enhance the socio-emotional development of infants in order to attain high socio-emotional development among infants.

Key words: Child development, Development indices, Infants, Socio-emotional

Introduction

Social emotional development is a fundamental part of a child's overall health and well-being, as it both reflects and impacts upon the developing brain's wiring and function. Socio emotional development within the first few years of life sets a precedent and prepares children to be self-confident, trusting, empathic, intellectually inquisitive, competent in using language to communicate, and capable of relating well to others. Early social experiences play a dominant role in determining the baby's future social relationships and patterns of behavior toward others.

The psychological theory of socio-emotional development states that human personality is developed through a repeating series of crises and resolution which includes the child's experience, expression and management of emotions and the ability to establish positive and rewarding relationships with others (Harber and Cohen, 2005). The core features of emotional development include the ability to identify and understand one's own feelings, to accurately read and comprehend emotional states in others, to manage strong emotions and their expression in a constructive manner, to regulate one's own behaviour to develop empathy for others and to establish and maintain relationships.

Healthy socio-emotional development for infants and toddlers unfolds in an inter-personal context, namely that of positive ongoing relationships with familiar, nurturing adults. Young children are particularly attuned to social and emotional stimulation. Even newborns appear to attend more to stimuli that resemble faces (Morton and Johnson, 1991). Through nurturance, adults support the infants' earliest experiences of emotion regulation (Thompson and Goodvin, 2005). The cognitive neuroscience findings suggest that the neural mechanisms underlying emotions regulation may be the same as those underlying cognitive processes (Bell and Wolfe, 2004). Emotions and social behaviours affect the young child's ability to persist in goal-oriented activity, to seek help when needed and to participate in and benefit from relationships. Young children who exhibit healthy social, emotional and behavioural adjustment are more likely to have good academics in elementary school (Harber and Cohen, 2005).

Socio-emotional development includes infants' understanding of what to expect from others, how to engage in back-and-forth social interactions and which social scripts are to be used for which situations. Thompson (2006) states that at each age, social cognitive understanding contributes to social competence, interpersonal sensitivity and awareness of how the self relates to other individuals and groups in a complex social world. Social understanding is particularly important because of social nature of humans and human's life, even in early infancy. Recent research suggests that infants' and toddlers' social understanding is related to how often they experience adult communication about the thoughts and emotions of others (Taumoepeau and Ruffman, 2008).

Children's early experiences including the residence or location where they grow up are predictors of a variety of later outcomes. If rural and urban areas are disadvantaging or advantaging for the well-being of children, it will be crucial for policymakers to be aware to reduce inequalities in well-being. Socio-emotional characteristics in the early years may have implications for the development of social behaviors. The research has found that children in relatively open communities had significantly higher scores on overall social engagement than children in more close and agricultural communities

(Edwards, 2000). So, an imperative need was felt to know how the parents of the rural areas of Northern Karnataka interact with infants while they perform the role of parenting. Any signs of maladaptive parenting can be remedied early in order to prevent from behavioural problems in infants. So the study to know the socio-emotional development of rural infants was taken up.

Material and methods

Research design: A cross sectional study was conducted by drawing infants from three age cohorts viz: 6-12 months, 13-18 and 19-24 months

Population and sample: Rural infants with a sample of 192 (92 males and 100 females) were drawn from three districts out of seven districts of Northern Karnataka where in from each district two taluks were randomly selected and from each selected taluk, two villages were randomly selected with a total of 12 villages. From each selected village, 16 infants were drawn randomly by age cohorts.

Measures used

Socio-emotional development was measured by using Social/ Emotional sub-scale of Bayley Scale of Infant and Toddler Development (BSID-III, Bayley, 2006). The tool measures the socio-emotional behaviour of the children from birth to 42 months. The scale consists of 35 items for different age cohorts. The caregiver or the mother has to rate the child on a six point likert scale: with 'can't tell', 'none of the time', 'some of the time', 'half of the time', 'most of the time' and 'all of the time' with a scoring of 0,1,2,3,4 and 5 respectively. There are six socio-emotional stages according to age. As the age group under study was up to 30 months which corresponds with fifth stage, only 27 items were considered. A maximum score of 135 and a minimum of 0 could be obtained. The total raw score obtained was converted to scale score considering the age of the child. The scale score was further converted into composite score/ indices ranging from 55-140. Higher scores indicate higher socio-emotional behaviour and was categorised as low (50-86), medium (87-113) and high (114-140).

Socio–Economic status scale: The socio-economic status (SES) was assessed by the socio economic status scale developed by Aggrawal *et al.,* 2005. The scale consists of 22 statements which assess education, occupation, monthly per capital income from all sources, possessions, number of children, number of earning members in family, education of children, domestic servants in home possessions of agricultural land and non- agricultural land along with animals and social status of the family.

Data Collection Procedures: The socio-emotional development was assessed using the Bayley-III scale where the parents were asked specific questions regarding child behaviour. Apart from it, the child was also observed during the play activity in their homes where rich information on socio-emotional behaviour of the child was obtained. The information regarding SES was collected through interviewing the mothers of selected infants. The interview was conducted for about 20-30 minutes.

Statistical analysis: One-way ANOVA was used for testing differences in socio-emotional development indices by gender and age cohorts and t-test was applied to test the differences between infants of the three districts.

Results and discussion

The demographic characteristics of infants are presented in Table 1. It was observed that infants aged between 6-12 months were 37 per cent, followed by 13-18 months (31.2 %) and 19-24 months (31.8 %). The male infants were 48 per cent and females were 52 per cent. About 54 per cent of the infants were from nuclear family and 45.6 per cent from joint family. About 72.4 per cent of fathers had attained primary education 11.5 per cent of them had higher education and 16.1 per cent were illiterate. Majority of mothers had higher education (50.5 %) followed by primary education (42 %) and 12 per cent of the mothers were illiterate. Majority (44.6 %) of the infants were second born followed by 37.8 per cent first borns. Only 14.5 per cent were third borns and a meager 2.1 per cent and 0.5 per cent were fourth and fifth borns respectively. Majority of families had two children (43.2 %) followed by one child (39.1 %) and 17.7 per cent of them had more than three children. With respect to caste, majority of them were from backward castes followed by 8.3 per cent of scheduled caste and 4.75 per cent scheduled tribes and only one per cent of them were of upper castes category.

Table 1. Demographic characteristics of infants selected for the study

Characteristics	Category	N	Percentage
Age (months)	6-12	71	37
	13-18	60	31.2
	19-24	61	31.8
Gender	Male	92	47.9
	Female	100	52.08
Ordinal Position	1	73	37.8
	2	86	44.6
	3	28	14.5
	4	4	2.1
	5	1	0.5
Type of family	Nuclear	104	53.9
	Joint	80	45.6
Father's education	Illiterate	31	16.1
	Primary	139	72.4
	Higher education	22	11.5
Mother's education	Illiterate	14	11.8
	Primary	81	42.1
	Higher education	97	50.5
No. of children	1	75	39.1
	2	83	43.2
	e"3	34	17.7
Caste	G M	2	1.0
	OBC	165	85.9
	SC	16	8.3
	ST	9	4.7
Socioeconomic status	Upper middle	23	12
	Lower middle	139	72.4
	Poor	30	15.6

The socio-emotional development indices of the infants is presented in Table 2. It was observed from the table that majority (65 %) of the infants had average (87-113) socio-emotional development indices while 26 per cent of them had high level (114-140) and nine per cent of them had low level (60-86) socio-emotional development indices(Fig. 1). On statistical analysis through t-test to know the differences between gender in socio-emotional development, the results showed that there was significant difference in gender where female infants (105.15 ± 1.35) were significantly higher in socio-emotional development indices than the male infants (100.92 ± 1.32).When differences in socio-emotional development indices by age cohorts and districts was tested through ANOVA the results revealed no significant differences between the age cohorts; F(1,192)=1.16, p=0.213 indicating that there was no variations in socio-emotional development indices among three age cohorts *viz.*, 6-12 months, 13-18 months and 19-24 months (Table 4) as well as no significant differences between the three districts; F(1,192)=0.377, p=0.68 indicating that there was no differences in socio-emotional development indices among the infants of three districts *viz.,* Dharwad, Bijapur and Bagalkot. (Table 5). The results indicate that girls had higher socio-emotional development indices than boys which showed that female infants attain early socialization. These results are in line with Weinberg *et al.* (1999) who also observed that female infants expressed more emotions than the boys. Chaplin and Aldao (2013) reported that girls were significantly higher in emotions than boys in toddlerhood. The findings of the study showed no differences on socio-emotional development indices among different age cohorts. A study by Molina and Bahrick (2013) in their study showed that early and late infants did not differ on amount of time spent to see overall visual displays on emotions. Another finding of the study was that not much difference was noticed between different districts of Karnataka on socio-emotional development of infants. A study conducted by Ashwini (2016) similarly found that there were minimal differences in socio-emotional behaviour of toddlers in two districts of North Karnataka. Chen (2009) in his study showed that early socio-emotional development did differ only when the cultural variations was maximum.

Table 2. Percentage distribution of infants by Socio-emotional development indices

Category	Frequency	Per cent
Low (60-86)	18	9.4
Medium (87-113)	124	64.6
High (100-140)	50	26.0
Total (N)	192	100.0

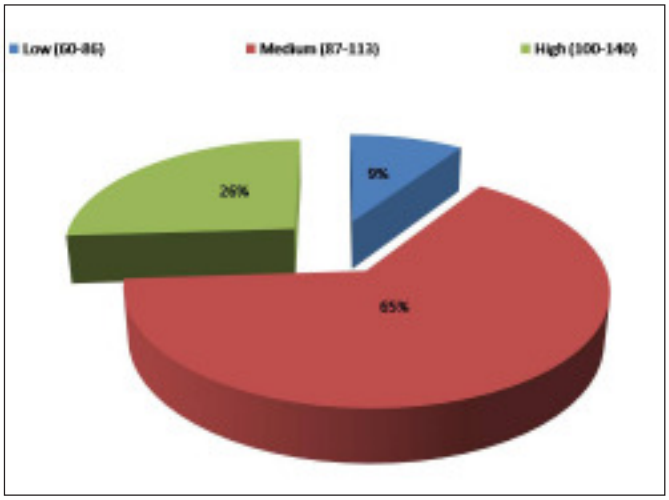

Fig. 1. Graph showing the distribution of infants by Socio-emotional development indices

Table 3. Comparison of mean scores of socio-emotional development indices between gender

Gender	N	Mean	Std. deviation	t-value	p-value
Male	92	100.92	1.32	2.24	0.027*
Female	100	105.15	1.35		

* 0.05 level of significance

Table 4. Comparison of mean scores of Socio-emotional development indices by age cohorts

Age Cohorts (months)	N	Mean	Std. deviation
6-12	71	103.87	11.98
13-18	60	104.25	14.60
19-24	61	101.15	13.25

ANOVA

Source	df	SS	MS	F	Sig. level
Age Cohorts	2	1.016	.508	1.557	.213^{NS}
Error	189	61.651	.326		
Total	191	62.667			NS=Non Significant

Table 5. Comparison of mean scores of infants' Socio-emotional development indices by districts

Districts	N	Mean	Std. Deviation
Dharwad	65	104.69	16.9
Bijapur	64	105.47	11.97
Bagalkot	63	105.79	14.15

ANOVA

Source	df	SS	MS	F	Sig. level
Districts	2	133.3	66.64	0.377	0.687 ^{NS}
Error	189	33441.7	176.9		
Total	191	33575.0			

NS = Non Significant

Conclusion

Most of the infants had average socio-emotional development where female infants were higher in socio-emotional development indices than their male counterparts. But there were no differences in infants' socio-emotional development indices by age cohorts and districts indicating that they were similar by age and among all districts. Since majority of the infants had average/low socio-emotional development there is a need for parent education program in order to enhance the socio-emotional development of infants.

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