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Social Skill Competencies in Babies: It's Improvement in Relation with Ecological Factors

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INTRODUCTION

Babyhood refers to the period of development that begins at one year after birth and ends at about 2 years of age. Although it comprises only 2 per cent of the life span, yet it is the most remarkable and busiest time of development (Berk, 1996). Infants are marvelously equipped to learn immediately after birth. Through classical conditioning babies acquire stimulus associations that have survival value. Operant conditioning permits them to control events in their surrounding world. The habituation-dishabituation sequence reveals that even newborns are attracted to novelty, and will decrease attention to repetitive stimulation, and their recognition of memory improves steadily with age.

Infants tried facial expressions, vocalizations and body movements to get their mothers to respond again. When these efforts failed they reacted to their mothers' sad, vacant gaze by turning away, frowning and crying (Ellsworth et al., 1993; Gusella et al., 1988; Mayes and Carter, 1990). By the end of the first year, infants deliberately look to others for emotional cues and evaluate uncertain events, such as, the approach of a stranger. Since, infants cannot describe their feelings, researchers face challenging tasks determining exactly which emotions they are experiencing. Although vocalizations and body movements provide some information, yet facial expressions seem to offer the most reliable cue during the age of 18-24 months (McDonald, 1997).

Cross-cultural evidence indicates that when infants are looking photographs of different facial gestures, people around the world associate them with emotions in the same way. In the 1970s and 1980s, the pragmatic movements in the field of speech-language pathology influenced by social-cognitive learning theory re-established the idea that language is embedded in a social matrix. This movement taught us that children do not talk about objects of interest in isolation. They communicate in the context of social interactions often for socially and emotionally driven reasons (Klein and Mosses, 1994). This orientation underscored the importance of care-giver-child interactions for language development and broadened our awareness of the range of issues that need to be considered in language intervention. Social and environmental factors have become so intricately related to health and diseases that often care must go beyond medical intervention. Child developmentalists have partially succeeded in designing and implementing early childhood intervention programmes to ameliorate social aspects of childhood morbidity.

Interventions and impact studies offer a wide variation in goals, coverage, theoretical assumptions and research designs. Most studies, carried out in the seventies and eighties, are empirical in nature. A substantive analysis of these studies indicates that a wide range of dimensions, mainly language, cognitive and social development have been studied thus, opening a large area for future research and action. Another crucial point is that many intervention evaluation studies lack a theoretical base in terms of the relationship between the organism and the environment (Gottfried, 1983). Such an approach may prove useful in gaining deeper insight into alternative intervention strategies appropriate for different groups of children.

The intervention may act directly on children by including new capacities and programmes in individuals or may attempt to modify the behaviour of various people, institutions or media that influences the lives of children (Gholson and Rosenthal, 1984). In view of this, the present study was undertaken with the objectives, namely, to identify the developmental deficiencies in babies for social development, to delineate the crucial ecological factors and to study the impact of intervention programme affecting social

development of babies.

MATERIALS AND METHODS

Present study was conducted at two locations, viz., Hisar city as urban and Rawalwas Klan and Siswal villages as rural. The purposes of selection of localities were easy accessibility and rapport with the respondents. A total of 400 babies during the age of 12 - 24 months were selected randomly for investigation. The sample was divided into four age groups, viz., 12 - 15, 15-18, 18-21 and 21-24 months, and over the localities and gender. Thus, there were 25 male and 25 female babies in each age group. This data were collected in two phases. During phase I the babies were observed for social skills by Vineland Scales of Social Maturity (Sparrow et al., 1984). In addition, data for family income were also observed.

During phase II the deficient group of babies for social development was identified on the basis of the mean performance of the babies. Thus, the intervention programme on home based techniques were developed for each age group for all the domains under study. Before administering the intervention, the programme was assessed by the team of learned scientists of College of Home Science, CCS HAU, Hisar as well as from other institutions. All the necessary suggestions were incorporated. The intervention programme was first applied on a part of sample and its effects were assessed. Then all the items were scrutinised carefully and some of unimportant items were dropped. Intervention was finally applied for a period of one month.

RESULTS AND DISCUSSION

Social development of babies start in early life and by the end of second year, self recognition is well established and underlines children's first struggle with peers over objects, personal acts and formation of a categorical self (Berk, 1996). Analysis of variance revealed that social skills of babies differed significantly over the age groups in urban (F = 5.71*) and in rural (F = 17.83**) areas (Table1). Mean squares for gender in urban (F = 14.44**) and in rural (F = 6.05**) areas were also significant. The interaction between age x gender was significant only in urban area (F = 4.50**). When the mean values of males and females were compared, it was found that mean of females (97.85±2.86) were higher than males (89.14±3.67) in urban (F=14.44**) area (Table 2). Similar trend was found in rural area. Significant Z values for all the age groups as well as for overall means, revealed that mean values of rural babies were higher than urban babies in

Table 1: Analysis of variance for social skills of babies during the age of one to two years

		Urban		
Source of variation	*D.f.*	*SS*	*MS*	*F*
Age	3	4489.18	1496.39	5.71**
Gender	1	3784.50	3784.50	14.44**
Age X Gender	3	3538.37	1179.46	4.50**
Error	192	50336.64	262.17	
Total	199	62148.69		
		Rural		
Age	3	11403.06	3801.02	17.83**
Gender	1	1290.32	1290.32	6.05*
Age X Gender	3	1332.62	377.54	1.77
Error	192	40930.56	213.18	
Total	199	54756.56		

*, **: Significant at 5% and 1% level of significance, respectively.

Table 2: Means and standard deviations of social skills domain for children during the age one to two years

	Age in months				
Gender	*12-15*	*15-18*	*18-21*	*21-24*	*Pooled Mean*
			Urban		
Boys	80.55	86.45	90.15	99.50	89.14
	(4.20)	(2.92)	(3.60)	(3.52)	(3.67)
Girls	90.25	105.45	100.50	95.20	97.85
	(3.10)	(2.00)	(2.90)	(3.85)	(2.86)
Pooled	85.40	95.95	95.33	97.35	93.51
Mean	(3.52)	(2.61)	(3.21)	(3.62)	(3.11)
			Rural		
Boys	90.50	98.50	105.15	110.20	101.09
	(4.75)	(4.65)	(3.10)	(2.96)	(3.15)
Girls	96.35	100.15	117.65	110.50	106.16
	(3.65)	(2.38)	(3.45)	(2.13)	(2.73)
Pooled	93.43	99.33	111.40	110.35	103.63
Mean	(3.57)	(3.17)	(3.25)	(2.24)	(2.81)
Z test for Urban vs Rural	11.28**	5.82**	24.88**	21.59**	6.95**

Figures in parentheses denote standard deviations,
**: Significant at 1% level of significance.

all the age groups (Z = 6.95**).

In present study the babies showed significant differences in development of social development skills for all the age groups. Females were better than males in social skills. This revealed the natural instinct in the babies had in their respective fields. Morriset et al. (1995) also found that girls were better than boys in social development during the age of 20 to 30 months. Similarly, Crandell, and Hobson (1999) found significant differences in various aspects of social development in different socio-economic groups. They also found that social development of babies was related to parent child relationship and intellectual development of babies. The interaction of gender with different intervals of age group revealed that differences observed for development of social skills only in urban areas. Social development was an important predictor of personality development and closely related with social-life abilities (Sun et al., 1997). In addition, study of social development of babies is an important particularly during first year of life because it is the period of emerging self and shaping children for predominant modes of viewing and experiencing world (Mayes and Cohen, 1993). Among different domains of social development, social skills had significant impact beacuse these skills contribute to behaviour for human social interactions. During the age of 12 months, the infants become sensitive to self and perceptual features of other objects mainly inanimate objects (Pipp-Siegel and Foltz, 1997).

As a whole, there was significant increase in all the activities of social development after every three months of interval. As usual the social development of urban babies was better than of rural babies. Interaction effects revealed that boys and girls learn social development differently.

IMPACT OF INTERVENTION PROGRAMME

Constructing an intervention programme is as much art as a science, requiring a creative interplay between existing cultural and political realities, prevailing scientific theories and paradigms and the research data applicable to the processes or deficits to be modified. The task of this investigation was to explore methods for preventing developmental deficiencies. In order to complete this task the current knowledge of theory and research pertaining to home environment and various developments of babies were examined. Finally, workable intervention strategies were devised and evaluated by learned experts.

Table 3: Effect of intervention programme on social skills of babies during the age of one to two years

Variable/ age	*No. of babies*	*Mean of babies before intervention*	*Mean of babies after inter-vention*	*Mean of babies in control*	*% of increase over control*	*t test for control vs Inter-vention*
		Urban				
12-15	13 (3.25)	60.78 ± 1.25	96.35 ± 1.17	62.75 ± 0.85	53.55	51.95**
15-18	11 (2.75)	65.35 ± 2.78	94.40 ± 2.86	63.70 ± 4.65	48.19	12.57**
18-21	11 (2.75)	60.15 ± 3.95	99.30 ± 3.05	69.85 ± 3.90	42.16	13.30**
21-24	10 (2.50)	67.79 ± 2.86	97.15 ± 1.96	73.20 ± 4.37	32.72	11.18**
Total/ Pooled mean	45 (11.25)	63.52 ± 3.67	96.80 ± 2.03	47.38 ± 5.00	43.66	20.48**
		Rural				
12-15	12 (3.00)	56.17 ± 2.68	86.10 ± 3.96	59.15 ± 1.18	45.50	14.58**
15-18	13 (3.25)	54.87 ± 3.70	90.15 ± 1.75	61.10 ± 1.91	47.55	25.08**
18-21	16 (4.00)	59.69 ± 2.61	85.70 ± 3.65	60.75 ± 1.10	41.07	14.63**
21-24	14 (3.50)	60.17 ± 1.93	92.65 ± 1.10	62.35 ± 0.75	45.71	50.89**
Total/ Pooled mean	55 (13.75)	57.73 ± 2.61	88.65 ± 3.34	60.84 ± 1.32	45.71	17.32**

Figures in parentheses denote percentages; ± values indicate standard deviations.
*, **: Significant at 5% and 1% level of significance, respectively.

Table 4: Association of economic status of the family with social skills of babies during the age of one to two years

	Urban					*Rural*				
	H	*M*	*L*	*Total*	χ^2	*H*	*M*	*L*	*Total*	χ^2
H	21	22	12	55		27	26	10	63	
	(38.2)	(40.0)	(21.8)			(42.9)	(41.3)	(15.8)		
M	26	38	16	80		18	41	14	73	
	(32.5)	(47.5)	(20.0)			(24.7)	(56.2)	(19.2)		
L	20	24	21	65		11	23	30	64	
	(30.8)	(36.9)	(32.3)			(17.2)	(35.9)	(46.9)		
Total	67	84	49	200	1.81	56	90	54	200	27.73**

*, ** : Significant at 5% and 1% respectively; Figures in parenthesis represent percentages.
H, M, L : Denote high, medium and low categories, respectively.

Intervention programme had significant impact on social skill development. Mays and Cohen (1993) said that it is an important period for improvement of social abilities of babies. Because during this period, personality of child may be shaped, refined and remodeled in the context of loving relations. Sun et al. (1997) also reported that early period of childhood is an important period for personality of children to be developed towards extroversion tendencies. Therefore, social learning aspect should be an important component of child's learning process (Lutjein et al., 1998). In order to develop an intervention programme for developing social skill in babies the positive emotion of children should be taken care of and false belief on the parts of parents (Watson et al., 1999). In addition, parental involvement and avoidance of negative emotions should also be an important tool for improvement of social development of babies (Iurko et al., 1999). Parental reactions to children's negative emotions and socially appropriate behaviour of children were the important aspect in the improvement of social behaviour of babies (Eisenberg et al., 1999).

IMPACT OF ECONOMIC STATUS ON SOCIAL SKILLS DEVELOPMENT

Family income appeared to be the important variable as it was associated with development of social skills. This may be attributed to better nutrition, play material, care and involvement with children in high income group Bradly and Caldwell (1984). Similarly in a study of 12 to 24 months old babies, Gottfried (1983) observed that SES was positively related with various parameters of child development and particularly with cognitive development. Wachs (1984) also reported that family income was closely related with developmental parameters of babies.

As a whole, there was significant increase in all the activities of social development after every three months of interval. As usual the social development of urban babies was better than of rural babies. Interaction effects revealed that boys and girls learn social development differently. Therefore, more emphasis should be given in rural area to improve the status of rural babies.

KEY WORDS Infant. Environmental Factors. Performance. Development.

ABSTRACT The infants' early interaction experiences are determined by a multitude of biological, cultural and environmental factors. If the performance of infants in a particular development is declining that may be improved by improving his home environment or enforcement by intervention programme. In view of these points present investigation was undertaken with a view to identify the developmental deficiencies in babies with reference to social skill development, to delineate the crucial ecological factors affecting this development, and to study the impact of intervention programme on social skill development. Present study was conducted at two locations, viz., Hisar city as urban and Rawalwas Klan and Siswal villages as rural. The purposes of selection of localities were easy accessibility and rapport with the respondents. A total of 400 babies during the age of 12-24 months were selected randomly for investigation. The sample was divided into four age groups, viz., 12 - 15, 15-18, 18-21 and 21-24 months, and over the localities and gender. Thus, there were 25 male and 25 female babies in each age group. Significant differences for all the age groups were observed for all the variables. This indicated that formation of different age groups at the interval of 3 months for these variables were appropriate. In social skill development, males, in general, were better than females. Interaction of age x gender also revealed that the boys learned social skills differently than girls over the different age groups. Comparison of urban and rural sample also revealed

that urban babies, in general were better than rural in social skill development. Regarding associations with economic factors, it appeared that the babies from higher income group generally had better development in social skills under both urban and rural areas. Intervention proved highly effective for development of social skills in both urban and rural areas.

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