

An Appraisal of the Time Differentials in Adjustment among Children in Laboratory Day Care Centre

Khwairakpam Sharmila* and Sarita Saini**

*Department of Human Development, Punjab Agricultural University,
Ludhiana 141004, Punjab, India*

*E-mail: *<chankhwai@gmail.com>, **<saritasaini@pau.edu>*

KEYWORDS Laboratory Day Care Centre. Care Providers. Early Adjusting Children and Late Adjusting Children

ABSTRACT The present study aimed to assess the time differentials among the newly admitted children in the Laboratory Day Care Centre. The study was based upon a sample of 32 (15 male and 17 female) children admitted in April, 2009 & 2010 sessions, as well as their 'Care Providers (n=3)' and 'Parents of the sample children (n=32)'. Observation-cum-Interview method was used for data collection for the study. Based on their non-adjustment reactions, the children were divided into two categories ('Early Adjusting Children' and 'Late Adjusting Children'). This categorization was based on an opinion survey conducted in the five 'Early Childhood Care Centres' in Ludhiana City. As per the opinion of the supervisors the 3 weeks time period was kept as the demarcating line for 'Early and Late Adjusting' categories of children. Therefore all the children taking more than 3 weeks time for their comfortable adjustment to the Laboratory Day Care Centre were designated as the 'Late Adjusting Children'. The results of the study highlighted that the girls were taking more time in adjustment as compared to the boys, but the gender differentials within these two categories were found to be statistically non-significant.

INTRODUCTION

Through the ages and across cultures, non-parental assistance in child care has been an enduring norm. Within any culture, moreover, a variety of family circumstances, multiple types of non-parental child care, and the complex effects of temperamental differences among children ensure that child care in and of itself is unlikely to have clear universal effects, either positive or negative. Nowadays, it is the accepted norm for majority of children to have a mother who is working. As a result, researchers have focused on the nature, extent, quality and age-of-entry into child care, as well as how the combined impact of these factors affect children from different family backgrounds, with different educational, developmental, and individual needs. Clarke-Stewart et al. (2000) studied the effects of parental separation and divorce on very young children and it was revealed that children's psychological development was not affected by parental separation per se; it was related to mothers' income, education, ethnicity, child-rearing beliefs, depressive symptoms and behaviour.

During early childhood years children make a slow but immensely important shift from dependent baby to independent child. This marks the beginning of a child's contacts with adults and peers as well as the experiences with ob-

jects. Thus, the preliminary working model of social relationships is revised, consolidated, and established more firmly.

The question "How long does it take for a child to adjust to Day care?" keeps intriguing many parents of the children who are entering Day care for the first time. The length of the time needed for a child to fully adapt to the day care environment varies depending on several factors, but with patience and consistency, parents can assist in making this transitory period in their child's life run smoothly. This transition is usually tough on the little children as they lead a fairly charmed existence for two years and suddenly their whole life turned upside down in a single day.

The child finds himself in a room full of strangers all day - with no Mommy, Daddy or grandparents in sight. But virtually every aspect of his daily routine is different. Children may take as long as 3 months before they increase their social approaches and decrease silent observations. Factors such as how stable the peer group is and whether there are familiar children in the group influence children's ability to adjust (Berk 2005).

It is always difficult to adjust to change even when the transition goes relatively smoothly. For the child, it is not only a change of caregiver, but a change in environment, food (at least to some degree) and routines. Parenting doesn't

happen in a vacuum; it is an interactive situation. Children also have styles, or temperaments, which mesh with their parents' style, each affecting the other. Differences in children's temperament can be seen even in infancy. Researchers have delineated three broad styles of temperament, as follows:

- *Easy children* are calm, happy, adaptable, regular in sleeping and eating habits, positive in mood and interested in new experiences.
- *Difficult children* are often fussy, irregular in feeding and sleeping habits, low in adaptability, fearful of new people and situations, easily upset, high strung, and intense in their reactions.
- *Slow to warm up children* are relatively inactive, reflective, tend to withdraw or to react negatively to novelty, but their reactions gradually become more positive with experience.

But in most cases, if the parents and teachers are dedicated to addressing the child's concerns and encouraging positive academic and social experiences, children truly enjoy the pre-school experience (Berk 2005).

Lewis et al. (1995) found that children with multiple siblings or those who interacted regularly with a variety of adult relatives had shown more rapid understanding of other people's thinking and acting than the children with fewer social partners. Therefore, how long it takes for a toddler to adjust to a daycare depends on some factors that is,

- The Child's Personality/Temperament
- The Degree of Change
- Unfamiliarity with the Environment before the First Visit
- Hours Spent at Daycare

Also, the construct of parenting style is used to capture normal variations in parents' attempts to control and socialize their children (Baumrind 1967).

Review of Literature

Aguillard and Pierce (2005) examined barrier to the implementation of continuity-of-care practices in child care centres. It was found that the barrier frequently suggested in the literature and by practitioners, caregiver turnover, was not a significant cause for the non continuity transitions. The primary barrier found was in-

fant caregiver unwillingness or inability to care for children who had developed toddler abilities.

The study conducted by National Institute of Child Health and Human Development (2005) identified Gender as an important moderator of early school achievement and adjustment.

Frankel (2009) investigated effects of the experience of day-care on children. The research findings pointed in the direction of attachment disturbances being potentially associated with early entry into day-care. The effect on social development was found to be more equivocal in spite of a tentative association with heightened aggressivity and a tendency for the child to be more oriented towards adults. Intelligence measures did not seem to be affected.

Objectives

With this backdrop the present study was planned with the following objectives:

- (i) To investigate the time differentials in adjustment among the new entrants in the Laboratory Day Care Centre.
- (ii) To ascertain the gender differentials in the adjustment among the new entrants in the Laboratory Day Care Centre.

Hypothesis

- (i) There is no significant difference among the newly admitted pre-schoolers in the time taken to adjust in their new environment.
- (ii) There is no significant difference between the two sexes in the time taken to adjust in the Laboratory Day Care Centre.

METHODOLOGY

I. Sample Selection

The study was conducted in the Laboratory Day Care Centre, Department of Human Development, Punjab Agricultural University, Ludhiana. Fresh admissions are made during the month of April each year and the sample was drawn out of the children admitted during two consecutive sessions (April 2009 and April 2010). All the newly admitted children in these two consecutive sessions were included in the study. In April 2009, 17 children (9 males and

8 females) and in April 2010, 15 children (6 males and 9 females) were admitted to the Laboratory Day Care Centre. The total sample of the study comprised 32 subjects (15 males and 17 females). Based on the admissions made during these two academic sessions, the subjects of the study were unevenly distributed over the two gender. All the children were carefully observed from the first day of their joining till three weeks to investigate the time differentials in their adjustment in the Laboratory Day Care Centre as per the pre-decided parameters of adjustment. Subsequently, on the basis of non-adjustment reactions shown by the children, they were categorized into two groups, viz, 'Early Adjusting Children (EAC)' and 'Late Adjusting Children (LAC)'. The dividing line for categorization of 'Early and Late Adjustment' was a set criteria on the basis of an opinion survey conducted in Ludhiana City in the five Early Childhood Care Centres. For this purpose the supervisors working in these centres were interviewed to seek their opinion based on their working experience as to whom they considered 'Early Adjusting or Late Adjusting Children'.

Thus, the data presented in Table 1 was utilized to categorize the observed children in the two categories of 'Early Adjusting Children' and 'Late Adjusting Children'. The results revealed that the mean time taken by the children to adjust was 2.6 ± 0.4 weeks. Therefore, in line with the results of the opinion survey the demarcating line between 'Early Adjusting and Late Adjusting Children' in the present study was drawn at 3 weeks. Although some foreign research studies were also available on this aspect, but the culturally appropriate responses were preferred. Indeed, the parenting is an intense and intimate experience in India which strongly influences the adjustment process of the children. After identifying the categories, observations were recorded regarding the non-adjustment reactions and behaviour of the 'Late Adjusting' group with a view to keep track of their behaviour. The observations during the subsequent weeks were periodical with two hours observation everyday alternating between outdoor and indoor activities. Observations of the 'Late Adjusting Children' were stretched up to 12 weeks (90 days) till the observed non-adjustment reactions phased out slowly. Observations during the extended period were more focused on the typical non-adjustment patterns of the individual subject.

Table 1: Information obtained from the care providers regarding adjustment patterns (in weeks) of the newly admitted children

Name of the early childhood care centre →	Laboratory Day Care Centre, PAU	Laboratory Nursery School, PAU	Magic Year Child Development Centre, Ludhiana	Pumpkins Pre-school, Ludhiana	Penquin Castle Pre-school, Ludhiana	Average Weeks of Adjustment (n=11)
Care provider (C)	C1	C1	C1	C1	C1	2.6 ± 0.4
Age group of children (years)	2-4	2-4	2-3.5	2-4.5	1.5-4	1.5-4
Time taken to adjust normally (weeks)	3	1-3	1-3	4	3-4	1-3
Time taken by late adjusting children (weeks)	After 3	After 3	After 3	After 3	After 4	After 3

II. Tools Used for the Study

• Checklist for Observation

A comprehensive checklist was prepared to record the time differentials of the new entrants in Laboratory Day Care Centre through spot observation. The checklist included the most common behavioural cues suggestive of adjustment vs. non-adjustment, displayed by the children during the daily eight hours schedule of the Laboratory Day Care Centre during the initial phase of their joining. The checklist was finalized after consulting the supervisors working in the Laboratory Day Care Centre, relevant literature and the experts in the subject so as to record the significant reactions displayed by the new entrants.

RESULTS AND DISCUSSION

I. Background Information of the Subject

The socio-personal characteristics of the respondents are reported in Table 2. These characteristics include their gender, age, maternal education, maternal occupation, paternal education, paternal occupation, family type, family size and number of siblings. As evident from the data, the total sample (n=32) comprised 46.9 per cent males and 53.1 per cent females.

The majority of the selected children were females in the age group of 2-2½ years and belonged to the nuclear families. Both the parents were well-qualified and professionally well-placed. The preponderance of the only child was also quite evident in the selected sample.

II. Observed Behavioural Cues of Non-adjustment Reactions

Barriers to smooth transitions vary depending on the individual contexts. To record the observations systematically and for proper generalisation, the non-adjustment reactions were categorized into six broad areas, that is, Eating Problems, Temper Tantrums, Over attachment with Mother, Over Attachment with Care-providers, Unwillingness to Come to the Centre and Withdrawn Behaviour. The behavioural cues suggestive of these non-adjustment reactions were carefully recorded and examined (Table 3).

Table 2: Socio-personal characteristics of the respondents

S. No.	Socio-personal characteristics	Frequency (n=32)	Percentage
1.	<i>Gender</i>		
	Male	15	(46.88)
	Female	17	(53.12)
2.	<i>Age</i>		
	1.5-2 years	1	(3.13)
	2-2.5 years	28	(87.50)
	2.5 -3 years	3	(9.38)
3.	<i>Educational Qualification of Mother</i>		
	10+2	1	(3.13)
	Graduation	10	(31.25)
	Post Graduate	17	(53.13)
	Ph.D	4	(12.50)
4.	<i>Profession of Mother</i>		
	Housewife	5	(15.63)
	Teaching	8	(25.00)
	Medical	7	(21.88)
	Others (corporate sector, bank jobs, etc)	12	(37.50)
5.	<i>Educational Qualification of Father</i>		
	10+2	2	(6.25)
	Graduation	4	(12.50)
	Post graduate	16	(50.00)
	Ph.D	10	(31.25)
6.	<i>Profession of Father</i>		
	Business	5	(15.63)
	Teaching	11	(34.38)
	Medical	6	(18.75)
	Administration	1	(3.13)
	Others (corporate sector, bank jobs, etc)	9	(28.13)
7.	<i>Family Type</i>		
	Nuclear	23	(71.88)
	Joint	9	(28.13)
8.	<i>Family Size</i>		
	Small family (3-4 members)	21	(65.63)
	Large family (5 and more than 5 members)	11	(34.37)
9.	<i>Number of Siblings</i>		
	Only child	22	(68.75)
	One	9	(28.13)
	Two	1	(3.13)

Figures in parentheses denote the percentages

III. Time Differentials in Non-adjustment Reactions

The existing time differentials among the new entrants in the Laboratory Day Care Centre were thoroughly observed for 90 days (almost 12 weeks) and presented in Table 4. The incidence was further analysed across the two designated categories that is, 'Early Adjusting Children' (EAC) and 'Late Adjusting Children' (LAC) on the basis of opinion survey conducted with the Supervisors of the selected Early Child-

Table 3: Behavioural cues of various non-adjustment reactions displayed by the children in laboratory day care centre

Non- adjustment reactions	Behavioural cues
<i>Eating Problems (EP)</i>	i. Rejecting Food ii. Spitting food iii. Vomiting iv. Crying at the sight of food
<i>Temper Tantrums (TT)</i>	i. Screaming ii. Shouting iii. Lying down on floor iv. Jumping v. Hitting things, himself and others vi. Showing anger vii. Breath holding
<i>Over Attachment With Mother (OWM)</i>	i. Not allowing mother to go ii. Not allowing to touch anyone except mother iii. Clinging hard to mother iv. Searching every room for parents v. Making sure that mother also stays with him
<i>Over Attachment With Care Provider (OWC)</i>	i. Over possessive about one of the care provider/attendant ii. Clinging to one of the care provider / attendant and not allowing anyone to come near iii. Pulling one of the care takers hand iv. Repeated asking for personal helper or maid at home
<i>Unwillingness to Come to the Centre (UCC)</i>	i. Crying and Turning back upon arrival at Laboratory Day Care Centre ii. Banging the door/wall
<i>Withdrawn Behaviour (WB)</i>	i. Peeping from windows ii. Searching for nooks and corners iii. Hiding behind the curtain iv. Standing quietly without responding v. Not entering activity room and staying in secluded place like kitchen and observatory vi. Always quiet and fearful vii. Not allowing others to touch his belongings viii. Carrying bag and searching every room ix. Pointing towards the door to open it x. Not crying, but impassive

hood Care Centres and the review of the available researches pertaining to this aspect.

The distribution of the respondents on the time scale (weeks) in Table 4 clearly brought out the time differentials in adjustment, among the children admitted in the Laboratory Day Care Centre. The Time Scale (weeks) elucidates the percent distribution of children across various non-adjustment reactions exhibited by the new entrants in the Laboratory Day Care Centre. The data revealed that the 'Unwillingness to Come to the Centre' and 'Over Attachment

Table 4: Per cent distribution of the sample children on the basis of non - adjustment reactions shown by them on a time scale

Parameters of non-adjustment	Time scale (Weeks)											
	Early adjustment zone						Late adjustment zone					
	0-1	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12
Eating problems	9(28.13)	5(15.63)	3(9.38)	1(3.13)	1(3.13)	1(3.13)	1(3.13)	1(3.13)	1(3.13)	1(3.13)	1(3.13)	-
Temper tantrums	12(37.50)	7(21.88)	5(15.63)	3(9.38)	3(9.38)	3(9.38)	2(6.25)	2(6.25)	1(3.13)	1(3.13)	1(3.13)	-
Over attachment with mother	20(62.50)	13(40.63)	9(28.13)	8(25.00)	4(12.50)	3(9.38)	2(6.25)	2(6.25)	2(6.25)	2(6.25)	1(3.13)	-
Over attachment with care provider	12(37.50)	7(21.88)	6(18.75)	5(15.63)	4(12.50)	3(9.38)	2(6.25)	1(3.13)	1(3.13)	1(3.13)	1(3.13)	-
Unwillingness to come to the centre	20(62.50)	9(28.13)	7(21.88)	5(15.63)	3(9.38)	2(6.25)	1(3.13)	1(3.13)	1(3.13)	1(3.13)	1(3.13)	1(3.13)
Withdrawn behaviour	16(50.00)	13(40.63)	12(37.50)	9(28.13)	9(28.13)	9(28.13)	6(18.75)	2(6.25)	1(3.13)	-	-	-
Weekly adjustment pattern	10(31.25)	2(6.25)	2(6.25)	6(18.75)	9(28.13)	3(9.37)	3(9.37)	-	-	-	-	-
Cumulative adjustment	10(31.25)	12(37.50)	14(43.75)	20(62.50)	29(90.63)	32(100.00)	-	-	-	-	-	-

with Mother' were equally strong in almost 62.50 percent children during the first week of joining the Laboratory Day Care Centre followed by Withdrawn Behaviour (50%), Temper Tantrums and Over attachment with Care Provider (37.50%) and Eating Problems (28.13%). 'Eating Problem' faded out at the earliest and 'Unwillingness to Come to the Centre' was latest to disappear. However, beyond 3 weeks time period the non-adjustment reactions which strongly persisted were 'Unwillingness to Come to the Laboratory Day Care Centre', 'Over Attachment with Care Provider' and 'Over Attachment with Mother'. 'Temper Tantrums' and 'Withdrawn Behaviour' were also displayed moderately up to 9th week of entry to Laboratory Day Care Centre. Thus, it can be concluded that the time taken as well as the strength/persistence of behavioural symptoms of children varied during this phase of transition from home to the Laboratory Day Care Centre.

Weekly adjustment and cumulative adjustment patterns depicted that almost 31.25 per cent children adjusted within the first week of their entry and 6.25 per cent adjusted in the second week and next 6.25 per cent in the third week. It indicates that by 3 weeks almost 43.75 per cent children were adjusted. These 43.75 per cent children were designated as 'Early Adjusting Children'. These patterns further depict that by the 9th week almost 90.63 per cent children were adjusted (18.75 per cent by fourth week and 28.13 per cent between 4 to 9 weeks) and could be considered "Moderately Late Adjusting Children". Thus, the extreme cases of late adjustment were only about 9.37 per cent. These results suggest that definitely the children varied in their pace of adjustment to new physical and social environment upon their entry to the Laboratory Day Care Centre. The underlying causes as discussed could be varied and could provide the explanation to these varying capabilities of the children.

Cabrera et al. (2011) studied the association among mothers', fathers', and infants' risk and cognitive and social behaviors at 24 months using structural equation modeling and data on 4,200 on toddlers and their parents from the Early Childhood Longitudinal Study, Birth Cohort. There were 3 main findings. First, for cognitive outcomes, maternal risk was directly and indirectly linked to it through maternal sensitivity whereas paternal risk was only indirectly related through maternal sensitivity. Second, for

social behaviors, maternal and paternal risks were indirectly linked through maternal sensitivity and father engagement. Third, maternal and paternal levels of risk were linked to maternal supportiveness whereas mothers' and children's risk were linked to paternal cognitive stimulation. Implications are that policy makers must take into account effects of mothers', children's, and fathers' risk on young children's functioning.

IV. Distribution of Early and Late Adjusting Children according to Time differentials

Further the distribution of the 'Early Adjusting Children' and 'Late Adjusting Children' according to the weeks taken by them in adjustment is presented in Table 5. In the case of 'Early Adjusting Children', the majority (71.42%) of the children adjusted within a week, while the rest (28.58%) adjusted within next 2 weeks. However, in the category of 'Late Adjusting Children', the results revealed that 33.31 per cent adjusted within 4 weeks followed by 50 per cent adjusting in 4 to 9 weeks and about 16.73 percent took 9 weeks or more to adjust. This distribution depicts the uneven adjustment trend of the child and his family. Within the category of 'Early Adjusting Children' as vast majority (71.42%) adjusted within a week and among the 'Late Adjusting Children' a vast majority (50%) took 4 to 9 weeks time to get adjusted.

Table 5: Per cent distribution of early and late adjusting children according to time differentials in adjustment

Particulars	Range (Days)	F	%
<i>Category Early Adjusting Children (n=14)</i>			
Within a week	1- 5	10	71.42
One to two weeks	7-10	2	14.29
Two to three weeks	15-18	2	14.29
<i>Category Late Adjusting Children (n=18)</i>			
Up to 4 weeks (More than 3 weeks)	24-28	6	33.3
4 to 9 weeks	30-60	9	50.0
more than 9 weeks	75-90	3	16.7

The data presented in Table 6 shows the time differentials in terms of the mean number of weeks taken in adjustment by the 'Early Adjusting' and 'Late Adjusting' Children. Results depict that there was a significant difference

between the time taken in adjustment by the 'Early Adjusting and Late Adjusting Children'. Further, it was found that 'Early Adjusting Children', on an average, adjusted within 1.43 weeks, while the 'Late Adjusting Children', on an average, took 6.28 weeks. The findings were found to be statistically significant at 0.05 levels.

Table 6: Time differentials (in weeks, mean scores $\pm$ SD) among the early adjusting and late adjusting children for adjustment in the laboratory day care centre (n=32)

Early adjusting children (n=14)	Late adjusting children (n=18)	t-values
1.43	6.28	3.019*

* Significant at 5 per cent

Glenn and Fraley (2012) examined whether early experiences with primary caregivers are reflected in adaptation of preschool children and the current study provides evidence that early parental support (derived from observations at 24 months and around age 4, in prekindergarten) is associated with academic skill, social competence, and externalizing behavior in kindergarten. Crucially, the shared environment accounted for virtually all of the correlation between parenting and academic skills, roughly half of the association between parenting and social competence, and approximately one fourth of the correlation between parenting and externalizing behavior.

V. Gender Differentials in Adjustment

Results presented in Table 7 reveal the gender differentials in relation to the time differentials for adjustment among Early Adjusting Children and Late Adjusting Children. It is apparent from the results that girls had taken slightly more time in adjustment as compared to boys in both the categories (EAC and LAC).

However, the gender differences within these two categories were found to be statistically non-significant. The study is in line with the study conducted by Arora et al. (2008) on the social emotional development of pre-schoolers (2-6 years) in joint and nuclear families. The results revealed that pre-schoolers of joint families had lower levels of behavioural problems than pre-schoolers of nuclear families and the girls exhibited lesser behavioural problems as compared to the boys. The differences observed were primarily due to the type of parenting, home environment, socialization of children and their relationships with peers and other family members.

CONCLUSION

It is important to understand the childhood stage in the context of the lives of the children in order to recognise and understand the impact of any transition which they might pass through. It is this early transition, and how children cope with it that exerts the greatest effect on the emotional development, and the ability to cope with life's challenges. Based on this premise, the present research study was undertaken with the goal to assess time differentials among the children for their adjustment to the new settings.

The deliberations revealed that time differentials in the adjustment of newly admitted children to Laboratory Day Care Centre were quite evident. As many as 43.75 per cent children were found to adjust within three weeks of their joining and were designated as the 'Early Adjusting Children'.

Remaining 56.25 per cent took more than three weeks and were termed as the 'Late Adjusting Children'. Therefore, it is suggested that further investigations should look into the causative factors at home and centre responsible for individual differences in adjustment behaviour.

Table 7: Gender differentials in the time taken (in weeks, mean scores $\pm$ SD) for adjustment in laboratory day care centre

Early adjusting children		t-values	Late adjusting children		t-values
Boys (A) mean time	Girls (B) mean time		Boys (C) mean time	Girls (D) mean time	
1.25	1.5	t _{AB} = 0.703	5.36	8.14	t _{CD} = 1.143

* Significant at 5 per cent

REFERENCES

- Aguillard AE, Pierce SH 2005. Barriers to the implementation of continuity-of-care practices in child care centres. *Early Childhood Res*, 20: 329-344.
- Arora S, Kaur A, Sharma I 2008. Social emotional development of pre-schoolers (2-6 years) in joint and nuclear families. *Psycho-lingua*, 38: 140-142.
- Baumrind D 1967. Child care and practices anteceding three patterns of pre-school behaviour. *Genetic Psy Monographs*, 75: 43-88.
- Berk LE 2005, *Child Development*. 6th Edition. New Delhi: Prentice Hall of India Private Limited.
- Cabrera NJ, Fagan J, Wight V, Schadler C 2011. Influence of mother, father, and child risk on parenting and children's cognitive and social behaviors. *Child Dev*, 82: 1985-2005.
- Clarke-Stewart KA, Vandell DL, Mc Cartney K, Owen MT, Booth C 2000. Effects of parental separation and divorce on very young children. *J Fam Psy*, 14: 304-326.
- Feldbaum CL, Christenson TE, Neal EC 1980. An observational study of the assimilation of the newcomer to the pre-school. *Child Dev*, 51: 497-507.
- Frankel SA 2009. Effects of day care: Implications of current knowledge. *Developmental Psy*, 31: 83-93.
- Glenn IR, Fraley RC 2012. A behavior-genetic study of the legacy of early caregiving experiences: Academic skills, social competence, and externalizing behavior in kindergarten. *Child Dev*, 83: 728-742.
- Lewis CN, Freeman NH, Maridaki-Kassotaki K 1995. The social basis of theory of mind: Influences of siblings and more importantly, interactions with adult kin. *Proc Biennial Meetings of the Society for Research in Child Development*, Indianapolis.
- National Institute of Child Health and Human Development 2005. Early child care and children's development in the primary grades: Results from the NICHD Study of Early Child Care. *American Educ Res J*, 43: 537-570.