3. Literature Review

The early parenting practices and their influence on children’s later development of independent cognitive and social functioning were studied by Landry et al.\textsuperscript{150} This study was guided by a hypothesis that assumed children’s later independence is facilitated by specialized parental support in early social interactions. They included, 104 term and 185 preterm children, as they are known to differ in early skills. The results of this study support a theoretical framework that emphasizes the importance of the social context for understanding the origins of children’s later independent functioning in cognitive and social aspects.

Isaranurug S et al\textsuperscript{151} conducted a study to find out the factors influencing the development of children between the age of one and six. The results revealed that the father’s education influenced development of children aged one to six years. If the fathers had higher education, they would have better access to information, be aware of information on child raising and apply this information to their children. House-hold environments which covered the physical condition of the house and provision of toys associated with development of children aged one to under three years because children at this age stay at home most of the time.

Hoff E\textsuperscript{152} studied the influence of socio-economic status over the early vocabulary development in the children via maternal speech. He hypothesized that children whose families differ in socio-economic status differ in their rates of productive vocabulary development because they have different language learning experiences. In this study, naturalistic interaction between 33 high socio-economic status and 30 mid socio-economic status mothers and their 2 years old children was recorded once and repeated again after 10 weeks. The results suggested that the high socio-economic status children grew more than the mid socio-economic status
children in the size of their productive vocabularies; properties of maternal speech that differed as a function of socio-economic status fully accounted for this difference.

With increased numbers of women employed in their children’s first year of life and with increased attention being paid by parents and policy makers to the importance of early experiences for children, establishing the links that might exist between early maternal employment and child cognitive outcomes becomes more important than ever. Negative associations between maternal employment during the first year of life and children’s cognitive outcomes at age three (and later ages) have been reported using data from the National Longitudinal Survey of Youth- Child Supplement. Jeanne Brooks-Gunn, Wen-Jui Han, Jane Waldfogel in their study explored these issues using data on 900 European American Children from the National Institute of Child Health and Human Development Study of Early Child Care, which provides information on child’s cognitive scores at 15, 24 and 36 months, as well as data about the home environment (as assessed by the HOME Inventory) parental sensitivity, Child-care quality over the first 3 years of life. They concluded that, even though the other influencing variables such as child-care quality, the quality of home environment and maternal sensitivity were controlled, the negative effects of working 30 hours or more per week in the first 9 months of the child still remain the same.

A prospective longitudinal study was conducted by Catherine S et al to examine the contribution of dimensions of maternal responsiveness (descriptions, play, imitations) to the timing of five milestones in children's (N= 40) early expressive language: first imitations, first words, 50 words in expressive language, combinatorial speech, and the use of language to talk about the past. At 9 and 13 months, maternal responsiveness and children's activities (e.g., vocalizations, play) were coded from videotaped interactions of mother – child free play;
information about children's language acquisition was obtained through biweekly interviews with mothers from 9 through 21 months. Maternal responsiveness at both ages predicted the timing of children's achieving language milestones over and above children's observed behaviors. Responsiveness at 13 months was a stronger predictor of the timing of language milestones than was responsiveness at 9 months, and certain dimensions of responsiveness were more predictive than others.

In another study by McCarty CA et al\textsuperscript{155} the role of parents in bringing emotional support among children aged 2-6 years was analyzed by using a developmental model. It has been suggested by the authors that later externalization of the problems could be evident in their children due to less parental emotional support and thereby giving importance to early parental emotional support in the development of positive promotion in child development.

Burbach AD et al\textsuperscript{156} in one of their studies on challenging behaviours in young children concentrating on the father’s role, interviewed 136 fathers and their challenging and pro-social behaviour towards their one to five year old children. It was, after careful scrutinizing found that the effect of paternal disciplinary practices frequently emphasizing on corporal and verbal punishments bring down the child’s esteem and create behaviour problems in the child.

In a three-year longitudinal study conducted by Gottfried and Gottfried\textsuperscript{157} among 119 children of one to four-year age group, a positive correlation between cognitive development and the home stimulation variables measured on the HOME scale was determined. The variables examined were parent involvement (reading, playing, warmth and affection, responsivity) and availability of stimulating materials such as toys, reading materials, craft materials and games.

Effects of various environmental measures on individual growth patterns were examined by Espy, Molfese and DiLalla\textsuperscript{158} among 105 young children in a longitudinal study. Intelligence
(Stanford-Binet, 4th edition) was measured at ages 3 through 6, and child’s environment (HOME and SES) was assessed at the age of three years. Growth curve analysis revealed that HOME scores exerted a constant influence on the expected composite, verbal, and non verbal intellectual skills at each age.

**Bradley and Cadwell**\(^{159}\) assessed the home environments of 72 children when they were 6 and 12 months old to examine the relationship between home environment (HOME scores), cognitive competence and IQ among males and females. The findings revealed that IQ in boys was best predicted using the 6-month and 12-month scores on play materials and the child’s language competence at age one. For girls the most efficient model included 12-month scores on play materials and maternal responsivity.

A four-year longitudinal study conducted by **Bee et al**\(^{160}\) among 193 working and middle-class mothers in Seattle, Washington showed that measures of environmental quality (orderliness, enrichment and overall stimulating quality) and of parent-infant interaction (mother-child interaction patterns, family habits, living patterns as described by the mother), taken in the first year of life are the best predictors of later IQ or language performance.

**Richter and Grieve**\(^{161}\) conducted a study among impoverished South African Families and examined the relationship between home environment, mental development and socioeconomic status. The study involving 305 children aged 2 to 30 months found the home environment scores to be significantly related to mental development, independent of socioeconomic status. These findings support the generalizability of the importance of the quality of home environment for infant development.

In India, **Mohite**\(^{162}\) conducted a two stage study to determine if HOME variables make a difference in school performance and learning difficulties of children aged six to nine years. The
findings indicated that, based on the HOME scores, it was possible to distinguish homes of children who were having learning difficulties from those of children who were successful in school.

**Parks and Bradley**\(^{163}\) investigated the relationship between features of the home environment (HOME scale) and domains of development (Griffiths scale) in six month-olds. The sample consisted of 155 families from diverse backgrounds, analysis of the data showed that more favorable eye-hand development was associated with more availability of appropriate play materials. The interaction of appropriate play material and maternal involvement was related to social and hearing-speech development.

**Williams and Rask**\(^{164}\) in their research, set out to identify factors that enable children to improve their literacy by looking at family environment and functioning in a deeper way. They used the presence and utilization of rhyming and phonic games, letter and alphabet jigsaws, informal games that become a part of family rituals, play inspired by stories or poetry and parental planning for imaginary play. The findings showed the significance of preschool home influences on the emergence of literacy. It underlined the importance of phonemic awareness, acquired through frequently playing games and hearing nursery rhymes, which led to their early success with reading. It also suggested a relationship between children’s ability to plan their imaginative play and their ability to learn aspects of literacy on entering school.

**Murray and Yingling**\(^{165}\) in a study exploring the interrelations among attachment, home stimulation and language development in 58 toddlers of two-years of age, indicated that mothers who had established secure relationships and provided stimulating home environments had children with the highest language scores.
Wood\textsuperscript{166} examined the nature of joint (parent-child) pre-school activities (play, shared reading, craft activities etc.) at home and their relationship to four-year-olds early reading skills. The findings showed that the frequency of these activities had an impact on reading attainment, vocabulary, memory and aspects of phonological awareness. The importance of shared storybook reading for later independent reading ability was reiterated by this study.

A Korean study conducted by Lee J, Super CM, and Harkness S\textsuperscript{167}, reported that children’s self-perceived competence and the home environment stimulation were positively correlated, especially HOME were important variables that affected children’s perceived competence in cognitive, social and physical domains.

Sameroff et al\textsuperscript{168} conducted a study with a socially heterogeneous sample of 215 four-year-old children showed that their verbal IQ scores were highly related to a cumulative risk index composed of maternal, family, and cultural variables. This study was important in demonstrating that environmental factors were more significant than early characteristics of the child in predicting preschool intelligence.

A four year longitudinal study conducted by Haight, Wendy, and Peggy Miller\textsuperscript{169} indicated that toddlers preferred to play with their mothers and their joint play lasted longer than the child's solo play. In the study, mothers directed pretend play activities with children aged 12 months old. By 24 months, parent and child shared play ideas and suggestions. At 24 months, 30\% of children's dialogue was imitations of their mothers' speech. At 36-38 months, mothers and children continued to play together, however, children were no longer imitating their mothers’ dialogue, but contributing their own original speech. By age four children were playing two hours a day (12.4 minutes every hour) and were playing twice as much with children of their own age. The results of this study also suggest that parents can directly influence how their
children learn to communicate during and through play experiences, by providing a model for their children to imitate.

Based on meta-analysis of 200 studies, White concluded that socioeconomic status might be an indirect measure of home atmosphere and correlated weakly (r = .22) with academic achievement whereas childrearing practices (reading to children, taking children to the library, etc.) more directly influence student achievement (r = .55). White commented, “It may be how parents rear their children . . . and not the parents’ occupation, income, or education that really makes the difference”.

Observations in an early study by Jensen yielded the following findings: Crude socioeconomic variables, such as income, occupation, and neighborhood, do not correlate as highly with intelligence and educability as do ratings of more psychological variables, such as whether the parents read to the children during the preschool years, whether the family eats together, whether children are brought into the conversation at the dinner table, and other features of parent-child interaction, especially involving verbal behavior.

Wolfgang and Stakenas investigated toy contents of preschoolers’ home environments as a predictor of cognitive development. Results demonstrated a strong positive relationship and further suggested that different toys and play forms were related to different kinds of cognitive development. Importantly, the researcher acknowledged that measures could not be based solely on the number of toys in the home, but that the parent-child relationship must also be considered. In-home observations revealed how toys were really used during play and what parents actually did to facilitate or impede cognitive development as they interacted with their children.
Zeavin\textsuperscript{173} noted the importance of physical environment with space for large motor learning and stressed that "Children's movement is not only a manifestation of physical well-being, but along with sensory experience is the foundation of intellectual functions".

Home observations and interviews by Snow et al\textsuperscript{174} indicated that children who spent time interacting with adults had an advantage over those who spent the majority of their time with siblings, peers, or both.

A study conducted by Janis R. Bullock\textsuperscript{175} analyzed the basic knowledge of child development milestones among 249 rural adults by using an instrument measuring adults' knowledge of child development and confirmed that they had lack of knowledge in the domains of physical, psychosocial, cognitive, and prenatal development of children.

Maria Filomena Gaspar, and Paula dos Santos e Paiva\textsuperscript{176} attempted to specify how different family factors relate to children's emotional and behavioural problems and socio-emotional competence. The study was conducted in a community sample of 362 Portuguese preschool children (age three to six years). Their findings confirmed a strong association existing between negative parenting practices (harsh, inconsistent, and lower supervision) and children's externalizing facets of difficulties (conduct problems and hyperactivity/inattention), but not with internalizing problems (emotional symptoms) and between positive parenting practices (appropriate, positive, and supervision) and children's competence and prosocial behaviour.

A review undertaken by Wacharasin et al\textsuperscript{177} identified a model in which maternal factors, such as knowledge of child development, stress, and depression, influence the quality of mother-child interaction, which in turn influences the child's cognitive development. They also found that the observed maternal supportiveness of the child during mother-child interaction directly influenced child cognitive competence whereas maternal knowledge of child
development and maternal stress affected child cognitive competence indirectly, by influencing maternal supportiveness.

In a quantitative cross-sectional study, Hao B et al\textsuperscript{178} assessed the level of language understanding and expression of healthy children aged from 8 to 16 months in Urban Beiging and correlated the same with the related factors such as children’s physical and psychological development conditions and social and economic status of children’s family. They concluded that early children’s language development can be attained by providing a rich language environment for the developing young children.

Liu X, Jin XM, and Shen XM\textsuperscript{179} performed a logistic regression analysis to identify the factors influencing auditory receptive and auditory expressive language development of children. The study included caregivers of 2794 two year old healthy children who were selected by a cluster sampling by using the early language milestone scale. The chosen regression model found out five factors as risk factors out of 24 items for the expressive language development such as seldom practicing speaking, reading quietly, being male, watching TV without discussing, beginning to read after the age of 1.5 years and 11 out of 25 items as risk factors for the receptive language development such as father’s physical labour occupation, seldom practicing speaking, living in city, reading quietly, watching TV for more than 2 hours a day, watching TV without discussing, lack of communication between children and caregiver, mother’s bad education, being male, seldom playing with other children, beginning to read after the age of 1.5 years.

Westbrook TR, and Harden BJ\textsuperscript{180} examined the impact of proximal (maternal depression, family structure) and distal (exposure to violence) risk factors on parenting characteristics (warmth, control), which were in turn hypothesized to affect child’s social-emotional functioning. The findings obtained by a multi group analysis support the family stress
model which suggests that family risk factors negatively influence children's development through influencing parenting behaviors. Findings also support considering both warmth and control as key parenting dimensions and those positive parenting practices positively influence child’s social-emotional functioning.

Schoon I et al\textsuperscript{181} assessed the longitudinal trajectory of childhood receptive language skills and early influences on the course of language development among 11349 cohort members who completed the English Picture Vocabulary Test at five years of age and were studied again at 34 years of age, when they completed a direct assessment of their basic literacy skills. The family variables examined were socio-economic family background, housing conditions, early literacy environment and adult literacy skills. They found that children with receptive language problems at age five had a relatively disadvantaged home life in childhood, both in terms of socio-economic resources and the education level of their parents. They concluded that factors that reduce the risk for persistent language problems include the child being born into a working family, parental education beyond minimum school-leaving age, advantageous housing conditions, and preschool attendance.

Schoon I et al\textsuperscript{182} assessed the longitudinal trajectory linking childhood receptive language skills to psychosocial outcomes in later life. Direct assessment of language skills were made at age five among 6941 men and women and the sample was studied again at age 34 to assess the psychosocial outcomes and levels of adult mental health. They found that during early childhood, children with poor receptive language experienced more disadvantaged socio-economic circumstances than those with normal language skills and showed more behaviour and psychosocial adjustment and also found that at age 34, cohort members with poor early language
skills reported lower levels of mental health than those with normal language. They concluded that early receptive language skills are significantly associated with adult mental health as well as psychosocial adjustment during early childhood and in later life.

Tong L et al\textsuperscript{183} conducted a longitudinal study to find out the relationship of working mothers' parenting style to their children's social competence and vocabulary/motor/intellectual development. Child development was evaluated by childcare professionals and parenting style was assessed by questionnaire. A total of 504 children and their mothers participated in the study. They found that the changes in parenting style were statistically significantly related to children's development after two years. For instance, changes in the parent-child playing routine contributed to the child's social competence (odds ratio = 11.088). Variation in working mothers' disciplinary practices was also associated with children's vocabulary development after two years (odds ratio = 2246). They concluded that working mothers should increase interactions with their children in their free time to reduce the risk of developmental delay.

In a cross-sectional study, Avan BI, and Kirkwood B\textsuperscript{184} evaluated the relative contributions of socio-economic status and rural-urban neighbourhoods on growth and psychomotor development of 1244 children aged less than three years in 15 rural and 11 urban communities of Pakistan via home visits using Bayley’s Infant Developmental Scale for psychomotor development, anthropometry and a socio-economic and demographic questionnaire. The results of their study suggested that rural-urban differences in psychomotor scores were strong even after controlling for differences in socio-economic status. It was also estimated that rural residence accounted for 28% of cases of delayed psychomotor development among study children.
In a rural cohort of 625 children registered from 1981 to 1983 in 10 villages of K.V. Block, Varanasi, India, 196 children were assessed for physical growth, development, intelligence and concept development between one and three years of age by Agarwal DK et al. Home environment was also assessed using Caldwell Home inventory. These rural children remained below 3rd centile of National Center for Health Statistics standard for weight, height, skull and mid-arm circumferences throughout the study. Malnourished children scored poorly in all the areas of development, i.e., motor, adaptive, language and personal social. Concept for color shape and size was poorly developed in malnourished children. Maternal involvement and stimulation was strongly associated with better behavior development and intelligence. The authors concluded that multiple regression analysis showed that the effect of home environment on development and intelligence was of a higher magnitude as compared to status and family variables and nutritional status during one to three years of age.

Cheng S et al investigated the factors that contributed to the developmental attainment of children between 9 and 18 months of age using prospective longitudinal data from a developmental cohort study in Japan. They were observed at 3 time points (at infant age of 4, 9, and 18 months. Mothers were administered questionnaires that requested information about their child's perinatal outcomes, temperament, family structure, family income, parental education, parenting stress, and child-rearing environment at home. At 9 and 18 months, mothers completed the Kinder Infant Development Scale to evaluate their child's development. The results suggested that birth weight, gestational age, and temperament were associated with development at 9 months, but the effects of gestational age and temperament on development disappeared at 18 months. Stimulation from the mother at nine months was not only related to development at that age but also promoted development at 18 months. In conclusion, the authors commented that
the role of family environmental factors such as early mother's stimulation and sibling's existence in development during early childhood might become more important as the child gets older.

Cheng S et al\textsuperscript{187} conducted a study to identify the factors that contribute to several domains of developmental attainment in 9-month-old infants in Japan. A total of 270 children were included in this analysis. Their findings suggested that after adjusting for the children's birth weight, gestational age, temperament, and other family environmental variables, multiple logistic regression analyses showed that greater maternal cognitive stimulation was associated with the development of receptive language, expressive language, social relationships, and feeding. Results also suggested that early supportive co-parenting helped to promote development in manipulation, receptive language, and social relationships.

Bradley RH, and Caldwell BM\textsuperscript{188} assessed the Home environments of ninety one 6-month-old infants with the Home Observation for Measurement of the Environment (HOME) Inventory. Multiple discriminant functions composed of the six subscale scores from the HOME Inventory were used to predict whether a child would be low IQ (below 70), low average (70 to 89), or average to superior (90 and above) at age 3 years. The mean vector of Home inventory subscales for the three IQ groups was significantly different (p < .01). Significant univariate effects were observed for three HOME Inventory subscales: organization of the physical and temporal environment, provision of appropriate play materials, and maternal involvement with child. The discriminant function of HOME Inventory subscale scores correctly predicted 71 percent of all children who scored below 70 IQ. The obtained results attested to the usefulness of the HOME Inventory in a comprehensive program of screening for developmental delay.
In a longitudinal study, Marques dos Santos L et al\textsuperscript{189} described the relationship between anthropometric status, socioeconomic conditions, and quality of home environment and child cognitive development in 320 children from 20 to 42 months of age, randomly selected from 20,000 households that represent the range of socioeconomic and environmental conditions in Salvador, Bahia, Northeast Brazil. Child cognitive development was assessed using the Bayley Scales for Infant Development, and the Home Observation for Measurement of the Environment Inventory (HOME) was applied to assess quality of home environment. Anthropometric status was measured using the indicators weight/age and height/age ratios (z-scores), and socioeconomic data were collected through a standard questionnaire. The findings suggested that socioeconomic factors were found to have an indirect impact on early cognitive development mediated by the child's proximal environment factors, such as appropriate play materials and games available and school attendance.

Kolobe TH\textsuperscript{190} examined the relationship between maternal childrearing practices and behaviors and the developmental status of Mexican-American infants. Information on childrearing practices and behaviors was gathered using the Parent Behaviour Checklist (PBC), the Home Observation for Measurement of the Environment (HOME) Inventory, and the Nursing Child Assessment Teaching Scale (NCATS). Infants' developmental status was assessed by use of the Bayley Scales of Infant Development II (BSID II). The authors concluded that Maternal nurturing behaviors, parent-child interaction, and quality of the home environment were positively correlated with the infants' cognitive development and for motor developmental status, the association appeared stronger with the infants' characteristics than with maternal childrearing practices and behaviors tested in this study.
Halpern R et al\textsuperscript{191} investigated the prevalence of positive screening test for developmental delays in a cohort of children born in Pelotas, Brazil in 1993, and their risk factors. The Denver II Test was used to screen the developmental status of children. The findings of the study reinforced the multiple etiology of development delays and the concept of cumulative risk effect. In this population those who are economically disadvantaged accumulate risk factors (social, economic and environmental) that may render to deficits in their development.

In a cross-sectional study, Nanthamongkolchai S, Ngaosusit C, and Munsawaengsub C\textsuperscript{192} investigated the influences of parenting styles on development of children aged three to six years in 360 children and their parents. They were selected by multi-stage random sampling. The Denver II test kit and the scale by Baumrind D were used to test the child development and parenting styles respectively. A questionnaire was used to collect the family and child factors. They concluded that Parenting styles had a significant influence on child development and the children raised with mixed parenting style had a 1.9 times higher chance of having delayed development compared to those whose parents used democratic parenting style. Therefore, the parents should rear their children by using the democratic parenting style that leads to the age-appropriate development of child.

A meta-analysis of 161 published and unpublished manuscripts was conducted by Hoeve M et al\textsuperscript{193} to determine whether the association between parenting and delinquency exists and what the magnitude of this linkage is. They observed the strongest links for parental monitoring, psychological control, and negative aspects of support such as rejection and hostility, accounting for up to 11\% of the variance in delinquency and also reported that a very few studies had
focused on parenting styles, although both dimensions of warmth and support seem to be important.

Since the Denver Developmental Screening Test (DDST) was first published 23 years ago, it has been utilized worldwide and restandardized in more than a dozen countries. Concerns raised through the years by test users about specific items and features of the Denver Developmental Screening Test, coupled with a need for more current norms, have prompted a major revision and restandardization of the test. Frankenburg WK et al\(^{194}\) revised DDST by administering the items to more than 2000 children. The average number of times each item was administered was 540. Using regression analysis, composite norms for the total sample and norms for subgroups (based on gender, ethnicity, maternal education, and place of residence), were used to determine new age norms. The final selection of the 125 Denver II items was based on the following criteria: ease of administration and scoring, item appeal to child and examiner, item test-retest and inter-rater reliability, minimal "refusal" scores, minimal "no opportunity" scores, minimal subgroup differences, and a smooth step-like progression of ages at which 90% of children could perform the tasks. The major differences between the Denver II and the Denver Developmental Screening Test are: 1) an 86% increase in language items; 2) two articulation items; 3) a new age scale; 4) a new category of item interpretation to identify milder delays; 6) a behavior rating scale; and 7) new training materials.

Glascoe FP et al\(^{195}\) tested the accuracy of Denver II in a study which included 104 children between three and 72 months of age attending one of five day-care centers. To determine the presence of developmental problems, children were administered individual measures of intelligence, speech-language, achievement, and adaptive behavior. A second psychological examiner, blind to the outcome of the diagnostic battery, administered the Denver-
II. Developmental problems including language impairments, learning disabilities, mild mental retardation, and/or functional developmental delay were found in 17% of the children. The Denver-II identified correctly 83% and thus had high rates of sensitivity. However, more than half the children with normal development also received abnormal, questionable, or untestable Denver-II scores. Thus the test had limited specificity (43%) and a high overreferral rate. The alternative scoring method, categorizing questionable/untestable scores as normal, caused sensitivity to drop to 56% although specificity rose to 80%. Since neither scoring method produced acceptable levels of accuracy, an effort was made to locate the sources of accuracy and inaccuracy within the test. Only items in the language domain were modestly helpful in discriminating children with and without difficulties. The findings suggested that the authors of the Denver-II need to engage in further development of the instrument including revising scoring criteria and item placement in relation to children's ages.

Vazir S et al\textsuperscript{196} conducted a multicentre cross-sectional collaborative study in three centres in India with the main aim of developing simple and reliable indicators for the early detection of developmental disabilities in children under 6 years of age and to compare the age of attainment of developmental milestones in children in the three regions. The study provided a simple low-cost and culture-appropriate psychosocial developmental screening test battery which can be used with ease by trained public health grass-roots functionaries. This instrument was standardized on a large rural, tribal and urban sample comprising more than 13,000 children from 3 regions in India. Quality control of data was ensured through inter-rater and test-retest measures of reliability. During pre-testing, 66 culture-appropriate milestones were selected finally from a larger item pool. The authors suggested that the 50th centile age reference values of the Hyderabad study children and those obtained by other two centres were comparable.
Thomas S et al\textsuperscript{197} conducted a cross sectional study to assess the knowledge, attitude, and practice of mothers regarding parenting of children less than three years of age with 120 mothers from both rural and urban areas of South India. Mothers were interviewed in their homes using a structured questionnaire. The nutritional status of their children was assessed by Anthropometry IAP (Indian Academy of Paediatrics) classification and Waterloo's classification were used to assess their children's nutritional status, and the Thiruvananthapuram Development Screening Chart [TDSC] was used to assess the children's development. The results suggested that majority of mothers had moderately adequate knowledge regarding parenting and also the mother's level of education had a significant association (p < 0.05) with their practice and attitude. In conclusion, the study brought out the association between socio-demographic variables and knowledge, attitude, and practice of mothers and its impact on growth and development of their children.

Dooley M, and Stewart J\textsuperscript{198} implemented a series of empirical strategies for estimating the existence and size of the effect of income on behavioural-emotional outcomes of young children. They also examined the role of parenting style. Their findings indicated that there was little evidence of an effect of income on behavioural-emotional outcomes but parenting style was found to have a consistent impact on child outcomes.

Ravenscroft Eleanor F, Harris, and Susan R\textsuperscript{199} examined the relationship between maternal education and infant neuromotor development in 412 infants who were healthy and born at term by using Harris Infant Neuromotor Test (HINT). Infants were recruited from community-based infant programs, childcare facilities, and homes in five Canadian provinces. The results confirmed that maternal education was only minimally associated with infant neuromotor development as measured by HINT total scores.
Petrariu FD, Gavăt V, and Amarandei ME\textsuperscript{200} assessed the impact of psycho-social environment on the toddler's development. They had analyzed the level of environmental risk by using a questionnaire from 200 families and correlated it with the toddlers’ development. The highest risk scores were obtained by families who sent the toddler in a foster home, followed by the families who use a day care center, and at last by the families where toddler remains in the family's home till he is 3 years old. On the other hand, in family environment with a mild risk there are significant more disharmonic children than in the families with a lower risk score (p = 0.0452). The authors concluded that the toddler's chances to evolve, by physical perspective, negatively in institutional environment are significantly higher if he comes from a family with mild risk score than in a family with a lower risk score.

Strayhorn, JM and Weidman CS\textsuperscript{201} developed Parent Practices Scale (PPS) which is a 34-item Likert-type scale that assesses the appropriateness of parental practices with their preschool aged children. It was standardized with 199 low-income parents or other primary caretakers of children enrolled in Head start classrooms. The PPS was administered to the same set of subjects twice, approximately 6 months apart. Alpha for the initial administration for the unidimensional 34-item scale was 0.78. Alpha for the second administration was 0.79. Correlations between items and the total score averaged 0.36 and ranged from 0.19 to 0.54.

Thomas, and Chess\textsuperscript{49} followed more than 100 children from birth to adulthood, focusing on the characteristics of temperament, including child’s adaptability, activity level, quality of mood, and distractibility. They found these characteristics to define three temperamental constellations: “difficult,” “easy,” and “slow-to-warm-up.” About 10% of children were generally less adaptable, had increased activity levels, and tended to be emotionally negative.
These children were considered “difficult.” “Easy” children, about 40% of the group, had regular eating and sleeping schedules, adapted well to new situations, and tended to have positive moods. A third group, comprising about 15% of the sample, was characterized as “slow-to-warm-up.” These children tended to be quiet and take longer to adapt to new situations.

Irwin JR, Carter AS, and Briggs-Gowan MJ examined the social-emotional problems and competencies of toddlers who evidenced lags in expressive language without concomitant receptive language delays. Their observation indicated that late talkers were more serious, more depressed/withdrawn, and less interested in play and also late talkers were reported to be lower in socialization on the Vineland Adaptive Behavior Scale than controls. They concluded that early lags in expressive language are associated with poor social-emotional adjustment. Intervention may ameliorate difficulty in linguistic and social-emotional functioning.

Poverty, the root cause of the existence of slums or settlement colonies in urban areas has a great impact on almost all aspects of life of the urban poor, especially the all-round development of children. Nair MK, and Radhakrishnan SR conducted a study on early child development focusing on the developmental status of children in the deprived urban settlements, who are yet to be on the priority list of Governments and international agencies working for the welfare of children, the contributory nature-nurture factors and replicable working models like infant stimulation, early detection of developmental delay in infancy itself, developmental screening of toddlers, skill assessment for preschool children, school readiness programs, identification of mental sub-normality and primary education enhancement program for primary school children. They concluded that 2.5% prevalence of developmental delay in the less than two year olds of deprived urban settlements, due to the presence of risk factors for developmental delay like low birth weight, birth asphyxia, coupled with poor environment of
home and alternate child care services, highlights the need for simple cost effective community model for promoting early child development.

The second year of life sees dramatic developments in infants' ability to understand emotions in adults alongside their growing interest in peers. Nichols SR, Svetlova M, and Brownell CA in a study used a social-referencing paradigm to examine whether 12-, 18-, and 24-month-old children could use a peer's positive or negative emotion messages about toys to regulate their own behavior with the toys. They found that 12-month-olds decreased their play with toys toward which a peer had expressed either positive or negative emotion compared with play following a peer's neutral attention toward a toy. Also, 18-month-olds did not respond systematically, but 24-month-old children increased their toy play after watching a peer display negative affect toward the toy. Regardless of their age, children with siblings decreased their play with toys toward which they had seen a peer display fear, the typical social-referencing response.

van den Akker AL et al investigated the type and stability of temperament profiles in toddlers, and relations of profile probability to negative and positive parenting trajectories. Mothers (N = 96) rated their child's (41 girls and 54 boys) Sociability, Anger Proneness, and Activity Level four times during one year. The assessment of parenting included both maternal self-reports and observational measures. Latent profile analysis indicated three child temperament profiles: a well-adjusted 'typical' profile, an 'expressive' profile with heightened externalizing problems, and a 'fearful' profile with heightened internalizing problems. Although toddlers' profile classifications were highly stable across one year, individual differences in (changes in) toddlers' temperament profile probability occurred. They identified negative and
positive parenting as environmental mechanisms that were related to the development of temperament profiles over time.

Pan BA et al\textsuperscript{206} investigated predictors of growth in toddlers' vocabulary production between the ages of one and three years by analyzing mother-child communication in 108 low-income families. They used individual growth modeling to describe patterns of growth in children's observed vocabulary production and predictors of initial status and between-person change. The obtained results indicated a large variation in growth across children. Observed variation was positively related to diversity of maternal lexical input and maternal language and literacy skills, and negatively related to maternal depression. Maternal talkativeness was not related to growth in children's vocabulary production in this sample.