7. Discussion

Development of child does not rely on one factor alone but on many factors, which promote or inhibit the child’s development. The nature and type of environment provided to children at tender age is very important for their overall development.\textsuperscript{213}

7.1 Home environment and Child development:

Earlier research on the physical environment of homes and communities primarily focused on environmental hazards, environmental stress and impacts of poverty. This body of research strongly pointed that physical aspects of the home such as cleanliness, water, noise and pollution influence the overall health and development of children.\textsuperscript{214,215} Recently, there has been increasing interest among researchers on the quality of home environments and their impact on child development.\textsuperscript{216-220}

During the investigation of three ethnic groups across the first three years of a child’s life Bradley et al.\textsuperscript{221} found that measures of particular aspects of the child’s home environment, such as parental response, and availability of stimulating play materials were strongly related to children’s developmental status. The findings of another study confirmed that on the HOME scale, particularly accessibility of materials (play objects, reading books, musical instruments, picture decorations, and other educational materials) was found to be a significant predictor of children’s perceived competence.\textsuperscript{222}

The specific interaction of two features of the home environment, availability of toys and amount of maternal involvement were examined in 6 months old children and found that higher locomotor, eye-hand coordination and critical developmental quotients were associated with the additive combination of more optimal play materials and high level of maternal involvement.
When examining the independent contribution of the factors, appropriate play materials were associated with more favorable eye-hand coordination.\textsuperscript{223}

Parents and the literacy environments they create in their homes are widely believed to play an important role in the development of children's reading and language skills. Evidence to support this belief has often centered on the time that parents spend reading to their children.\textsuperscript{224} Scarborough, Dobrich, and Hager\textsuperscript{225} found that preschoolers who were read to more and who participated in more solitary book activities at home became better readers by Grade 2 compared to preschoolers with less frequent early literary home experiences. DeBaryshe\textsuperscript{226} observed that mothers who began reading to their children at an earlier age had children with greater receptive language abilities.

In developing countries, research consistently revealed that the assessment of home environments positively correlated with children’s cognitive and social development.\textsuperscript{227} In Pakistan, home environments were found to relate positively to the cognitive competence of children.\textsuperscript{228} In Philippines, home environments of 177 five and six-year-old preschool children were found to be related to intellectual development.\textsuperscript{229} It was also demonstrated that the environmental factors and the home have significant influences on personality development in a Nigerian study conducted by Odebunmi.\textsuperscript{230}

Comparison of urban and rural sample revealed that urban babies, in general were better than rural in social skill development.\textsuperscript{231}

The findings of all the above studies are in accord with the results of the present study.

\textbf{7.2 Parenting style/practices and Child development:}

Many family factors influence the development of children aged between one and three years old such as parenting styles, parental education, family structure, parental occupation
socio-economic status of parents, living area (urban and rural), number of siblings, living standard, type of family (joint or nuclear family) single parent family etc. Parenting styles have been described as the collection of parents’ behaviors which create an atmosphere of parent-child interactions across situations.

During the first years of life, thought by many to be a unique period of human development – parents assume special importance. As parents guide their young children from complete infantile dependence into the beginning stages of autonomy, their styles of caregiving can have both immediate and lasting effects on children’s social functioning in areas from moral development to peer play to academic achievement. Ensuring the best possible outcome for children requires parents to face the challenge of balancing the maturity and disciplinary demands they make to integrate their children into the family and social system with maintaining an atmosphere of warmth, responsiveness and support.

Authoritative parents set reasonable demands on and have high expectations for their children while being warm and responsive. The authoritarian parent is demanding and unresponsive to the emotional needs of the child, as well as being controlling, and detached. In addition to high control and demand, authoritarian parents show little warmth, involvement, support, or emotional commitment to their child. Permissive parents exhibit high levels of warmth and low levels of control. According to Baumrind children of permissive parents are often left to regulate their own activities, behavior, and emotions at a young age.

Many studies have been already done to find the relationship of socio-economic status of parents and child development and socio-economic status of parents and parenting style and the effects of single parent family on the development of children. But no studies had analyzed the
influence of these family factors in toddlerhood during which the child observes the parents, their behaviours and attitudes, learns habits, toddles and explores the environment.

Thus, the present study examined whether there was difference in the child rearing practices between literate and illiterate parents living in urban and rural areas of Bangalore and correlated the different parenting styles with the psychosocial development of children aged one to three years old.

Dornbusch et al.\textsuperscript{237} found that authoritarian and permissive parenting styles were negatively associated with higher grades, whereas the authoritative parenting style was positively associated with higher grades which is in agreement with the results of this study.

The results of our study are partially consistent with the findings of a previous study conducted by Kapur M et al.\textsuperscript{238} where they had assessed the psychosocial development of preschool children in South India and concluded that the psychosocial development in terms of gross motor, fine motor, conceptual readiness, language and personal – social skills were closely associated with the stimulating child rearing practices rather than the macro-environmental factors such as residence, parental education and home. They also observed that there were some significant urban/rural differences in performances favoring urban children which could be attributed partly to the differences in child rearing practices.

A cross-sectional study conducted by Meenakshi Malik et al.\textsuperscript{239} in Raja bazaar, an urban slum in Central Delhi, examined the psychosocial development of 202 infants by using Psychosocial Development Screening Test developed by ICMR and correlated with the socio-demographic factors and revealed that literacy of parents especially mothers was not significantly influencing the development of the infants living in urban slums which is contradicting the results of this study.
This study correlated the parenting styles with the various domains of psychosocial development by considering location of the residence (Urban or Rural) which is determining the living standard and the parents’ literacy status which is one of the influencing factors of the parenting style.

The findings of the following studies are in concord with the results of the present study obtained by the univariate and multivariate analysis.

**7.3 Type of family and Child development:**

A stepwise multiple regression with psychosocial development as dependent variable indicated significant associations between specific maternal child rearing behaviours and psychosocial development of 1-5 year old children. Children, whose mothers were responsive to their needs, were consistent in their interaction with them and were also emotionally stable during specific child rearing situations were those identified as "positive deviants" with regard to their development. Other factors, which were significantly associated with positive deviance in children, were paternal literacy and nuclear type of family.\(^\text{59}\)

**7.4 Family income and Child development:**

Child behaviour is an important dimension of children’s mental health and has consequences for outcomes in later life. Low SES and child behavioural problems are linked.\(^\text{240}\) The literature has identified several aspects of the broader home environment as important correlates of poor child behaviour.\(^\text{241, 242}\) The human capital perspective emphasizes that money can be invested into the development of the child, whether to improve the physical environment for learning or to purchase goods and services that stimulate positive development. Bradley and Corwyn\(^\text{243}\) and Berger et al\(^\text{241}\) found a link between low income, the material quality of the child’s home environment and child behavioural outcomes for relatively contemporary cohorts.
of children in North America. An alternative perspective emphasizes the emotional impact that low income has on parent-child interactions, for example through greater parental stress or likelihood of depression. Maternal depressive symptoms have been widely linked with mothers’ ratings of their children’s behaviour. Parental conflict has been associated with child emotional well being found maternal emotional distress to be an important mediator between low income and poor behavioural outcomes.

There is a close relationship between high quality of family context and high socioeconomic status, and between low quality of family context and low socioeconomic status. Researchers have also found a relationship between high levels of socioeconomic status and high levels of cognitive development.

7.5 Influence of Birth order and Number of siblings on Child development:

The younger sibling benefits from observing the older sibling and learns faster when helped by an older sibling than when alone. There is also evidence that the benefits to the younger sibling increase with the age-difference. One may also expect that older siblings benefit from instructing their younger siblings as proposed by the quality accumulation hypothesis. The work by Dunn suggests that having a younger sibling may sharpen the social awareness of the older child, and that the mother can improve the older child’s ability as a caregiver by discussing the younger sibling’s needs with him. Stewart and Marvin suggest that older siblings often assume care-giving responsibility and younger siblings seek attachment to older siblings with care-giving qualities in the absence of a parent. Lindert found that being early in the birth order is beneficial for educational attainment using sibling data. He argues in support of the dilution model citing evidence from time budget surveys that show that the amount of child-care time received by a child is decreasing in the birth rank.
Baydar, Greek, and Brooks-Gunn\textsuperscript{256} and Baydar, Hyle, and Brooks-Gunn\textsuperscript{257} find that the birth of a sibling increases the chance that the mother adopts more controlling parenting styles and that it can result in lower levels of verbal ability and behavioral problems of the older sibling. Belmont and Marolla,\textsuperscript{258} Blake,\textsuperscript{108} Zajonc,\textsuperscript{259} reported a negative association between rank in the birth order and cognitive ability. Explanations consistent with the negative birth order coefficients are provided by the Quantity Dilution Hypothesis\textsuperscript{108-111} as well as the Quality Dilution Hypothesis.\textsuperscript{112,259} Dilution models suggest that being early in the birth order is beneficial for attainment since a child that is early in the birth order may receive a larger share of the family resource or the services received are of better quality compared to a later-born sibling who faces more competition.

Very young children (preschool age and younger) with siblings spend more time interacting with their siblings than with any other person, including their parents.\textsuperscript{260-262} This unique relationship influences younger siblings’ development. For example, younger siblings’ language development is facilitated by observing the interactions between their older sibling and their mother\textsuperscript{263, 264} and their cognitive development is facilitated by rich cooperative activities that older siblings make possible.\textsuperscript{265}

In the presence of an older sibling, younger siblings’ opportunities to participate in conversations are diminished; younger siblings produce fewer utterances and fewer answers to questions than when the older sibling is absent.\textsuperscript{266} As a result, the presence of older siblings may be detrimental to language learning. Moreover, the greater the number of children per family fewer the parental resources available per child.\textsuperscript{267} Younger siblings received less linguistic attention from their mothers than older siblings did\textsuperscript{268} and the presence of older siblings resulted in less conversation between mother and younger siblings.\textsuperscript{269}
Older siblings influenced the onset of their younger siblings’ motor milestones. In some families, younger siblings crawled and walked earlier than their older siblings did, suggesting that the onset of younger siblings’ motor milestones may be facilitated by imitating or modeling their own older siblings. In contrast, in other families, older siblings crawled and walked significantly earlier, suggesting a delay in the onset of younger siblings’ motor milestones. In these cases, parental ‘resources’ may have been split between the two siblings, creating a disparity between the amount of attention available to the older sibling prior to the birth of the younger sibling and the amount of attention available for two children.

Within the field of the relationship between sibling interactions and cognitive development, a number of studies have been carried out that show the importance of these relationships in the development of perspective-taking skills and the understanding of others’ emotional and mental states. Some authors have provided data that support the hypothesis that children with older siblings develop theory of mind skills at an earlier age. Another group of researchers have focused on the relationship between birth order, intellectual development and academic performance. According to the confluence model designed by Zajonc and Markus, as the number of siblings in the family increases, the richness of the stimuli for cognitive development received in family interactions gradually decreases, due to the fact that siblings are not such effective, complex role models as adult parents. The relation between the number of siblings and cognitive development is therefore inversely proportional. According to Zajonc, this theory is corroborated by over 50 empirical studies. A theory that complements the confluence model in explaining the inverse relation between the number of siblings and cognitive development is the resource dilution theory. This theory has recently been the focus of attention by researchers who have provided some support. It is based on the work of Blake.
who claimed that parents’ material, educational and interactive resources are limited, and that therefore an increase in the number of sibling results in their progressive dilution. The confluence model and the resource dilution theory are complementary since the theory of confluence supports the hypothesis that an increase in the number of siblings is detrimental due to the impoverishment of the family stimulation environment, and the resource dilution theory qualifies this by suggesting that this impoverishment is caused by the dilution of parental resources.

A regression analysis to find the influence of socioeconomic status, quality of family context and sibling status on cognitive development in a sample of 551 five-year-old children confirmed the predictive value of socioeconomic status and quality of family context on cognitive development. The quality of family context mediates the relation between socioeconomic status and cognitive development. None of the variables relating to the sibling group (birth order and number of sibling) showed a significant relationship with cognitive development which is contradicting the results of the univariate analysis of this study.

7.6 Maternal employment and child development:

The maternal employment in the first year after the birth, and particularly full time working, has small negative effects on children’s cognitive outcomes (relative to not working at all in the first three years). However, this may be at least partially offset by positive effects of working in the second and third years of the child’s life.

Hill et al used the technique of propensity matching in order to identify the effects of early maternal employment and found that children of mothers who worked part-time in the first year would have experienced adverse effects if their mothers had instead worked full time. They also found that children of mothers who worked full time apparently could have benefited if their
mothers had not worked in the first year and suggested that the adverse effects of employment may be dependent on the skill level of the mother.

Harvey\textsuperscript{278} and Han et al\textsuperscript{279} reported that there was no significant difference in the effects of early maternal employment on boys and girls. Although not statistically significant, the results of Hill et al\textsuperscript{277} do suggest differential effects of early employment by gender. Brooks-Gunn et al\textsuperscript{280} found far larger negative effects of employment prior to 9 months for boys than for girls. Waldfogel et al\textsuperscript{276} found that the detrimental impact on cognitive outcomes of first year full time employment is larger for girls than for boys.

7.7 Limitations of the study:

In this study during the assessment of the toddlers, in many of the households only mother was present and she was the informant from whom the informations regarding parenting style and practices were collected and there was no opportunity to obtain those informations from father, which was not practically possible as they went for job/work.

This study did not analyze the effects of single parent and the average time spent by the fathers with their toddlers on the various domains of psycho-social development of these toddlers.