Quality of Caregiver- Child Interaction in Early Childhood Care and Education Centers

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Abstract: A twenty-six item standardized instrument adapted to local context was used to collect data on the quality of care giver-child interaction in Early Child Care and Education center-based setting. A total of twenty centers representing private, government and community-based types were observed and both quantitative and qualitative data collected. In about sixty-five percent of the classrooms observed, the quality of care giver interaction with children was below the overall mean value (Mean=2.50). The analysis also showed that care givers' score was found to be high in the punitive subscale and low in the positive interaction scale. At the spot qualitative data captured using open ended items also showed that care givers tended to be detached and permissive in their interaction with preschool children. Yet, there were quite a number of care givers' behaviors that promoted the cognitive, social and emotional development of preschool children. Quality of care giver child interaction varied as a function of time of observation, context and care giver's profile. Implications for improving quality care giver child interactions and suggestions for future research are forwarded in light of the findings.

Key words: care giver; quality of interaction; child care; education centers

Background

The far reaching benefits of early childhood care and education (ECCE) is given substantial attention in the psychological and educational literature. During the past decades, there has been a steady increase in scientific evidence that establish the importance of

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early years for later development (Currier, 2001; Essa, 1999; Kagan & Neuman, 2005; Lynch, 2006/07; Ramey & Ramey, 2005; Flett, 2008; Blatchford & Woodhead, 2009; Woodhead, Ames, Vennam, &Workineh, 2009).

The importance of ECCE could be understood from three overlapping arguments. The scientific argument maintains the strong link between quality preschool care and education program and outcome variables in the cognitive, social, and emotional domains (Lynch, 2006/07, Blatchford & Woodhead, 2009). Summarizing various sources, Kagan & Neuman (2005) stated that young children who receive quality early care and education are likely to demonstrate better cognitive and language abilities. The economic argument is based on the cost benefit analysis of early intervention versus late intervention. Early intervention program costs are much lower than those incurred to mitigate school failure, special education needs, delinquency and arrest rates at later stages (Essa, 1999). The social equity argument considers early childhood care and education as an overarching right of children to live and to develop to their full potential (Woodhead, 2005). The rights of children to survive and get access to health and education services are part and parcel of compelling human rights explicitly stated in the UN Convention on the rights of children (UNCRC, 1989).

Although variations exist, important early childhood care and education program components include: having a well-specified curriculum, the quality and pattern of relations between care givers and children, and their relationships to cognitive, linguistic and social competence (Ramey & Ramey, 2005). This research attempts to explore the pattern and quality of care giver child interaction in center-based contexts.

The Problem

The government of Ethiopia showed commitment to safeguard the rights of children in getting access to basic education. It also laid the support system to foster children's healthy development. Regional and global conventions of which the Ethiopian government is the signatory provide the foundation and framework to safe guard the rights of children to get basic education, health service and protection from risk factors that threaten their full development. The 1948 Universal Declaration of Human Rights adopted by the United Nations Declaration on the Rights of the Child, the 1999 Convention on the Rights of the Child, the Constitution of Federal Democratic Republic of Ethiopia (FDRE), the 1996 Social Welfare Policy of Labor and Social Affairs are all cornerstones to ensuring the healthy development of children (FDRE, 1995; Mackelech, 2007; Tirussew, 2005).

However, the services delivered to children in center-based settings are piecemealed and functioned in a subtle way, which did not bring equity and quality care and education to young children. The Education Statistics Annual Abstract Ministry of Education (2009-2010) document showed that school age population within this age group was about 7,127,883. Out of the estimated 7.12 million children of this cohort group about 341, 315 (4.8%) were reported to have access to preprimary education being served in 3,318 centers in the country. Accordingly, the gross enrollment ratio for the nation was 4.8%. The commitment of the Ethiopian government to expand primary education did not trickle down to bring substantial and coordinated change in Early childhood care and education program. As Pence and Nsamenang (2008) commented, Early Childhood Development (ECD) is paid low recognition compared to its 'older siblings': primary, secondary and tertiary education.

Nowadays quality is a cross cutting issue at all levels of the educational system in Ethiopia. Reports and few empirical studies

indicate that the state of early childhood care and education in Ethiopian remained sub-standard even when compared to the situation in many African states. According to UNESCO Cluster office Addis Ababa report (2006), none of the preschools visited by the office met quality standards set by the Ministry of Education.

There is a noticeable lack of empirically based information about quality issues in early childhood care and education centers at national level. The existing domestic works focused on the structural aspects of quality indicators such as class size, space and other infrastructure issues. The care giver child interaction which is an essential component in the psycho-social development of preschool children is a minimally attended area in Ethiopia. Working aggressively on the process indicators of quality is strategically viable approach in spite of the huge financial resource needed to improve the impoverished physical settings in the ECCE centers. The National Policy Framework for Early Childhood Care and Education as well suggests "the necessity to promote quality child-care giver interaction both at home and school settings" (MoE, MoH, & MoWA, 2010, p.14). This research, therefore, attempts to explore quality of care giver child interaction as one component of the process aspect of ECCE programs in center based settings. Quality of Early Childhood Care and Education in the context of this research covers programs that cater for children aged 4-6 years enrolled in private, government and faith-based centers.

This study delves into the following areas: the status of quality care giver interaction in ECCE centers; whether center types differ in quality of interaction between care givers and children; and the specific classroom and center-based instances that can be attributed to quality care giver-child interaction.

Significance to the Study

The study of early childhood care and education framed by developmental theories that recognize the importance of multiple concurrent forces within the child's developmental niche is important in the Ethiopian context. Empirical evidences pertaining to early childhood care and education in particular and early intervention programs in general are meager or at least inadequately researched area. Investigating the road map by which programs strive to enhance major developmental milestones of children and how children's development is constructed in these centers as a result of caregiver-child-setting interactions has theoretical and practical significance. This study, therefore, is a contribution towards narrowing this paucity of empirical evidence regarding the process aspects of quality ECCE programs.

Review of Related Literature

The issue of quality care and education is not simply a theoretical abstraction but part and parcel of the overall child rights and the long term benefits accrued from the delivery of developmentally appropriate services. Despite its elusive nature to conceptualize and define it operationally, quality is a cross cutting issue in early childhood care and education research arena. Programs that could bring a positive difference in the lives of children and their families, and the extent to which these programs have achieved the goal of promoting cognitive and social development of children are cardinal issues addressed in ECCE studies (Meisel & Burnett, 2006).

The yardsticks for assessing program quality in early childhood care and education centers range from structural to process aspects and how these two dimensions give rise to developmental outcomes in center-based settings (Tietze, et al., 1996). Currier (2001) categorized ECCE quality indicators into two components i.e., 'Structural' and

'Classroom process' in which the former includes attributes such as teacher-pupil ratio, class size, teachers and administrators background characteristics and the latter comprising teacher-child interaction, the layout of classroom materials, and developmental appropriateness of programs.

According to Peralata (2008), the commonly used quality criteria include: parental involvement, adult-child interaction, suitability of programs, and children's involvement in play, adequate physical space for different kinds of activities, and ongoing team training to capacitate care givers profile.

Children's direct experience in the centers and the reciprocal interactions with care givers described as "the engine of development" (Bronfenbrenner & Morris, 1998 cited in Howes et al., 2008) was found to be important correlate of outcome variables. Reciprocal classroom interactions between children and adults, children and the ECCE environment in a state of positive emotional atmosphere promote early literacy and language development. Effective interaction built around instructional content areas was found to be predictor of children's general knowledge area and academic skills (Howes et al,. 2008).

Research findings indicate important factors that mediate care giver-child interaction. These elements include behavioral repertories of both the child and the caregiver and the quality of bi-directional reciprocity governed by the give-and-take principle. In summarizing research findings, Kelly and Barnard (2009) reported that care giver characteristics such as looking at, smiling at, vocalizing to, and physical proximity are adult behavioral repertories that enhance children's cognitive and social development.

Emphasis on the quality of interaction among care givers, children, and materials reflect the widely accepted view that the effects of early care and education settings derive from multiple exchanges (Crouch et al.,

2006). Classrooms and play grounds in early childhood care and education centers are developmental niches in which preschool children's developmental outcomes are configured through the process of child–adult-setting interactions. Analogous to the child's home environment, classrooms are *the most proximal settings nested within child care centers* (p.303) for predicting quality of child care services (Pillipsen, Burchinal, Howes, & Debby, 1997).

The theoretical discourses in developmental psychology underline the importance of quality care giver-child interaction for cognitive and social development of children. Piaget and Vygotsky, for example, acknowledged the indispensable contribution of quality caregiver child interaction to developmental outcomes. According to Carl (2005), it is the quality of the relationship created by the sensitive care giver that provides the balance between assistance and encouragement and promotes development. The new paradigm of childhood (Dahlberg, Moss & Pence, 2005) recognizes this stage of development not only as a biological state but a social construct, whose environment is constructed for and by children, within actively negotiated set of social relations.

Hence, this research conceptualizes the development of the preschool child in ECCE centers as something evolving, developing and crystallizing from the reciprocating relationships with caregivers, other children and objects in the child's micro system and from mutual understanding and support established in due course of interaction.

Research methodology

Design of the study

The method of inquiry selected for the study is the mixed research design in which the quantitative and qualitative approaches complement each other in a way they properly describe the dimensions

of care giver-child interaction. According to Hauser-Cram et al (2009), the exclusive use of the quantitative measurement can inadvertently close off understanding of phenomena; on the other hand, the complementary quantitative-qualitative method would allow capturing the multifaceted features of ECCE programs. From the mixed-design approach, the Concurrent Triangulation Strategy is used to integrate the quantitative and qualitative data collected from the observation checklist augmented by open ended items and field notes taken during indoor and outdoor activities. Accordingly, this would help to enrich the data and cross-validate findings obtained from these two different but complementary sources (Creswell, 2003). The strategy included triangulating data to verify convergence of findings from the observation scale and three open ended items that addressed the context for the observation, statements about classrooms, and caregivers' characteristics.

Study area and centers observed

The study was carried out in a purposively selected ECCE centers at Addis Ababa, Akaki-Kality Sub-city. The presence of private, government, community and faith-based centers representing children from different socio-economic backgrounds was the reason for selecting this sub city as a study area. Twenty observations were made under different contexts; early in the morning when national anthem was sung, while class was conducted, during break and meal time. Observation time in each classroom ranged from 45 minutes to one and half hours. Table one below shows distribution of the center types included in the study.

Table 1: Distribution of the center types observed

Center types	Frequency	percent
Private	10	50
Government	7	35
Others*	3	15
Total	20	100

The category includes community based center types

Instrument and validation process

Quality of care giver-child interaction was assessed by the Caregiver Interaction Scale (CIS). The CIS is better suited to make in-depth, process oriented observations (Meisel & Burnett, 2006, p. 533) of child adult interaction targeting specific goals of preschool education program. The CIS assesses the interaction of the lead teacher with preschool children in the kindergarten classroom, using items anchored along four points 1 (Not at All True), 2 (Somewhat True), 3 (Quite a Bit True), and 4 (Very Much True). The original instrument includes 26 items factor analyzed into four subscales: Positive Relationship, Punitiveness, Permissiveness, and Detachment. The author (Arnett, 1990, cited in Jaeger, Elizabeth, and Funk, 2001) considers high scores to be desired for the Positive Relationship subscale, with moderately high scores desired for the Permissiveness subscale and low scores desired for the Punitiveness and Detachment subscales. The instrument has administration, scoring and interpretation instructions. Internal consistency and inter-rater reliability of 0.65 or higher were reported in earlier studies. Cronbach alphas of 0.91 for Positive Interaction and 0.90 for Punitiveness were reported. Some researchers found 0.98 and 0.93 for the total scale for lead and assistant teachers respectively (Jaeger, Elizabeth & Funk, 2001).

In this study, an overall alpha of 0.815 was found indicating a strong internal consistency of the items. Cronbach alpha for the subscales were found to be 0.823, 0.829, 0.827, and 0.725 respectively denoting strong internal consistency of the items within the sub scales too.

The use of an observation checklist to investigate the process aspect of quality in ECCE centers found to be useful in another culture would raise the issue of item fairness and appropriateness in the Ethiopian context. However, the items in the CIS as measures of care giver interaction address "what is necessary to meet children's developmental needs across different cultures" (Tietze et al., 1996, p. 449).

At the end of the CIS scale three open ended questions were framed to capture qualitative data on contexts in which ECCE programs were run, classroom situations and care givers and children's overall behavior in due course of interaction. The approach focused on description of events in the process of care giver child interaction in multiple settings rather than focusing on the outcomes resulting from the interactions in these settings. The data obtained from field notes taken throughout the data collection process complemented the qualitative data obtained through the open ended questions. Multiple realities in the ECCE environment enabled to collect diverse data pertaining to the four dimensions of care givers' and children's behavior resulting from the interaction process.

Along each item a separate space was provided for capturing specific behavioral instances that promoted or obstructed care giver child interaction. Furthermore, words and phrases that describe the meaning of each item were carefully sorted out from the literature and put in parenthesis along each item. Ninety-five words and phrases were carefully selected from the literature, analyzed for their relevance and categorized along the four dimensions of the CIS observation checklist. The use of such descriptive words and phrases helped as filters to decide the incidence of specific instances in a particular context and setting. The inclusion of open ended items and descriptive phrases into the original instrument enabled to contextualize the scale into local situations. These behavioral instances captured during care giver-children interactions through open ended items and field notes were categorized along the four subscales. A case report was also included in the analysis to have an in-depth understanding of the situation in a typical center and the extent to which circumstances promoted the transaction between children and care givers.

Results

The status of care giver child interaction in ECCE centers

Negatively scored items were reverse coded and average classroom scores were computed from the total score for each classroom. Maximum mean score was 3.65 and the minimum 1.38. The overall mean value for the classrooms was 2.50. Sixty-five percent of the observed classrooms fell below this mean value which indicated below average quality care giver child interaction in the centers.

Table 2: Mean values computed from the overall scale and subscales for the two center types

Scales	Center types	N	Mean	Std. Deviation
Overall	Government	10	2.48	0.50
	Private	10	2.40	0.59
Positive interaction	Government	10	2.19	0.54
	Private	10	2.27	0.69
Punitiveness	Government	10	2.84	0.65
	Private	10	2.59	0.72
Detachment	Government	10	2.25	0.94
	Private	10	2.27	0.92
Permissiveness	Government	10	2.63	0.78
	Private	10	3.07	2.10

It would be more informative to see the nature of interaction with regard to each item in the subscales. The lowest mean value was for the item that read "when talking to children kneels, bends, or sits at their level to establish better eye contact". This suggested that one- to- one interaction between caregiver and a child was low and care givers tended to be less-responsive to children's cues. The mean scores for the items that read "pays positive attention to the children as individuals" and "encourages children to exhibit prosocial behavior" were found to be below the average score for the positive interaction

scale suggesting that care givers behavior in terms of availing choices and opportunities for self development was not adequate.

The mean values for items places high value on obedience, expects children to stay calmly, is critical of the children, and speaks with irritation to the children were found to be low suggesting the punitive behavior of care givers when these items were reverse coded. Quality of interaction between care givers and children was not also in the desired direction with regard to the item "spends considerable time in activity not involving interaction with children" and the item "does not supervise the children very closely", indicating the permissive behavior of care givers.

An independent t-test was computed to see if there was statistically significant mean difference between two categories of center types with respect to quality of interaction. Due to the small number of community-based center types they were lumped together with the government center type. The government and community center types were more or less similar in terms of provisions and structural indicators of quality. Mean scores computed from the overall scale and the separate subscales were compared for the two categories. The analysis showed that the two groups did not significantly differ in terms of quality of care giver child interaction.

Instances of care givers' punitive behavior

Care givers' punitive behavior in this context does not necessarily mean physical punishment. In the observed ECCE centers physical punishment seems exception rather than being a rule to discipline children. Punitiveness in its wider sense, however, denotes a wide array of negative emotional expressions that may have a damaging effect on children's' development. Care givers' punitive behavior captured during classroom and outdoor interactions include: demanding unrealistic and age-inappropriate discipline, using coarse

voice in verbal communications, humiliating a child for his/her physical appearance, using verbal insults, threatening a child for his/her unruly behavior, restricting children to stay calmly in one place and activity for prolonged time, disregarding the child's interest, and not recognizing the child's efforts.

Specific instances of detachment

This aspect of interaction involves care givers' and children's physical and psychological distancing as opposed to proximity. Detachment is characterized by care givers' minimum involvement in children's activities and inhibition in reciprocating to cues coming from the other end. Instances of care givers' detachment from children's activities include: leaving children unattended at play grounds, being idle for prolonged time, reactive when addressed as Miss (example: repeatedly saying 'don't call me Miss'), being indifferent to children's performances, repeatedly focusing on few and selected children, feeling bored by the children's behavior (example: 'Why do you bother me so much'?),and insensitivity to children's problems (example: 'Go home and ask your father or mother') are instances of care givers' psychological distancing observed during interactions in classrooms and outside.

Specific instances of permissive behavior

The traditional child rearing adage *spare the rod and spoil the child* does not seem applicable in the observed centers. The traditional view that children should show strict adherence to adults' obligations seems to wither away gradually. However, in some centers care givers seemed to overlook some unhealthy practices and unruly behaviors of children. These permissive behaviors on the part of care givers were mostly observed during break time while children spent some time at play grounds. Instances of such permissive behavior included: unsupervised or unattended play, watching children but not actually

making any meaningful interaction, little or no appropriate measures displayed to control misbehaving children, not monitoring minor health irregularities (for example: a child complaining stomach discomfort went to the toilet unescorted), overlooking health and safety procedures.

Devotion time a context for care giver child interaction

One could say devotion time (flag ceremony) is a peak moment for sharing emotions, fostering supporting environment with each other and for maintaining strong attachments. All scenes observed during outdoor activities and flag ceremonies were so exciting and the true meaning of reciprocation got meaning there. Regardless of age, experience and status- quo all care givers sang, danced intermingled with children holding hand to hand in chain. Songs, lullabies, cultural dances, choruses were echoed loudly. Games that promoted rule and role play skills; group dynamics, societal values were played and instilled in collaboration between care givers and children. Short stories and folklores were narrated here. One would say these scenes were the melting pot of care giver-child interaction in ECCE centers. Devotion episodes (Flag ceremonies) were performed with escalated spirit and enthusiasm. Children led the scene two at a time carrying the green yellow and red emblem and walking gracefully all the way from the office to the pole. Daily routines and schedules were also communicated during flag ceremonies. This pre-classroom episode may last from 35 - 45 minutes at times one hour.

However, there is a big contrast between the transactional component in the classroom and outside classroom environment. By the time children get into their classrooms the peak moment progressively slides down. The intensity and diversity of the interaction begins to lose its momentum. Are classrooms better developmental niches for holistic development of ECCE children? Why are children bound within four

walls for hours? Child based pedagogy and care giving essentially require free and guided exploration of the environment.

Classrooms

Care-giver made learning materials are posted on the walls. In terms of lay out, attractiveness, and capturing the attention of children, these stimulating and learning materials in the government and community based centers are not inferior to the ones observed in the privately owned centers. One of the government center types functioning in the premise of a primary school in the study area seems to be an exception. The researcher observed children solving puzzles, assembling different kinds of templates and building blocks which promote fine motor development. Mattresses are on the floor where children can imagine and symbolize home settings. Interestingly, though community and government owned centers seemed to be inferior to the private ones, at least in terms of diversity of playing and caring materials, they are not as such bad in providing ample space for easy movement of care givers and children. Care givers have better chance of reducing the physical and social distance between themselves and the children. Apart from this scenario, adequate space provides tremendous opportunity to restructure the classroom environment to suit different purposes, for example, for group-based activities and demonstrations that promote prosocial behaviors, communication and play skills. One of the centers observed is community-based center owned by *Kebele Idir*. The center is meant to support children from the low income community whose parents are not able to send their children to *high profile* private centers. The classrooms compared to many of the private centers are spacious facilitating child-teacher and child-child interactions. However, the chairs and desks are much similar to the ones found in the formal school system.

Walls are decorated with cut out numbers and letters, drawings, names of objects, days of the week, names of months, both in English and

Amharic. Daily prayers and statements that promote values are part of the scene. In another classroom there was a display of a list of remarks teachers use to motivate children when they perform well. Some of the remarks include: *well done, bravo, thanks, neat, you are star, I am proud of you, great!* Besides, the wall display includes birth records and other bio-data of children. It goes without saying that some of the drawings posted on the walls are alien to our culture. Environmental knowledge is particularly a stepping stone for children's cognitive development. However, while there were diverse indigenous flora and fauna types in Ethiopia, classroom walls are heavily crowded with drawings of buffalos, deer, and penguins. This is especially true in the privately owned centers. Many of the books shelved in the classrooms were imported from abroad mainly with contents from India. Minimum or no attempt was made to adapt the imported teaching materials to local needs and environment. In some of the private centers, it was observed that children and care givers interact only in English language. One may take that as a rule of thumb set by the management. The paradox is that these same care givers are poor spellers and their grammar full of errors. Instances of observed statements in the classroom include these:

- *Insects is a small animal with six legs*
- *What is insects?*
- *Where did insects live?*
- *Some are harmful insects*
- *Some are useful insects*

Physical space is related to psychological space in which children and care givers may share affectionate relationships. Interaction is spatial. As Lewin (cited in Baldwin, 1980) indicated, transactions take place in a field. Where space is limited, children fight for territory. In small sized classrooms, chairs are rigidly fixed in a permanent layout which may not allow children to vary what they may be looking at. This arrangement forces children to look at the blackboard. Apart from such

discomfort, it discourages eye-to-eye-contact – a useful tool as a channel for communicating emotions. Space limitation is problematic for interaction in the private centers. Outdoor play objects such as sliders that promote gross motor development are available in the private centers. However, their use is seriously constrained by space limitations. In centers where the primary and secondary levels of education are working side by side with preschool programs, this space limitation forced ECCE children to play with grownups despite the fact that the type and intensity of play is determined by age. As children grow the type of play and its content gets sophisticated and becomes physically demanding. Inappropriate interaction due to differences in age may precipitate physical and psychological harm to the young ones.

Care givers' overall profile

Care givers' affection is a substitute for unsecured parental love and care. At times care givers may have a more significant role than biological parents. Children may prefer to stay in early childhood care and education centers to growing in hostile family environments. Care givers have multiple responsibilities. On the one hand, they play a parenting role. They have their own children at home. On the other hand, they take care of the children's holistic development. The love and affection children lack at home can be provided by a responsible adult care giver. The eye-to-eye contact, emotional warmth, physical and psychological stimulations, the caring attitude are all proven ways to put the child on the right path of development. A child deprived of adult interaction at home gets relaxed and enjoys care givers' love and affection in the process of interaction in a reciprocating way in center-based settings. Preschool environment is uncontested developmental niche for the child. Preschool environment is not only a substitute for those children who face deprivation in the family but also an option for those living and growing in a supporting family environment.

Except in rare cases care givers are found to be highly affectionate with a feeling of close attachment with children. Physical punishment seems to be an exception rather than being a rule to discipline children. *Spare the rod and spoil the child* principle seems obsolete. Physical punishment is losing its importance to discipline children in the day-to-day practices of ECCE centers. This is a new perspective in child rearing practices in the Ethiopian society. A number of instances observed during data collection process substantiate the affectionate relationship between care givers and ECCE children.

In some centers care giver child interaction begins outside the main gate. Care givers with their white gowns make a queue just outside the main gate. By the time the child is dropped by his/her parent or any significant person, he/she is expected to greet every care giver awaiting there. Care givers kiss, hug, and make brief communication with the child about his/her home, mom and dad. This is also an important moment for care giver-parent interactions. Brief communications are exchanged. The status of the child is reported at that brief moment. If there is something that worries parents, it is at this brief moment that opinions are exchanged and temporary solutions suggested. The situation demonstrated that it is impossible to rule out the importance of supportive relationship between parents and care givers to meet the physical and psychological needs of children.

A number of care givers' behavior in the cognitive domain was not proper in terms of capacitating children's language and communication skills. These included improper pronunciation, incorrect grammar usage, spelling and conceptual errors. Some of the misspelled words, conceptual errors and words posted on the wall or written on the blackboard are shown below.

Table 5: Spelling and conceptual errors committed by care givers

Spelling errors		Conceptual errors	
Words	**Errors**	**Words**	**Errors**
Vowels	Voules	Tell	Say
Tongue	Toungue	Like	Found
Nail	Neil	See	Look
Zebra	zebre	-------	-------
Perfume	parfum	-------	-------

In the centers observed much emphasis was given to the development of numeric and literacy abilities with little or no attention to other aspects of development such as prosocial behavior and communication skills. Classroom sessions were didactically structured in a rigid and fixed manner like that of the formal school system. Lesson plans were prepared in exactly the same way in the formal school system allowing little or no room for activities other than the development of literacy and numeric. In almost all cases care givers wanted children to show their excellence and brevity in reading, writing and computational skills. The transition from one activity to the next was slow and it did not transcend in a natural pace. Hence, children were forced to stay idle and detached from any meaningful interaction with the care givers which ultimately perpetuated disciplinary problems.

For many of the care givers assigned in the primary school affiliated 0-grade preschool centers, it was a make-shift position. These care givers were teacher training graduates certified to teach in the formal school system. However, it is not clear on what ground they are assigned to support and care children in the preschool centers. In my research visit to the regions, for example, I came across with two care givers assigned in preschool classrooms due to health problems. Their health condition did not enable them to teach in the first and second cycles of primary education.

In not few cases, care givers were found to be highly overwhelmed by routines such as exercise book checking. Except one, all classrooms have two care givers. In the Ethiopian context the two care givers discharge their duties and responsibilities on equal status. Unlike the Western care giving system, one is not a lead teacher and the other an assistant. For instance, in a given session, language is taught by one of the care givers while the other takes her turn and teaches arithmetic. In due course, both of them check exercise books and monitor discipline interchangeably. Interestingly, the two care givers at times show quite different temperaments, which clearly exhibit the multiple nature of care givers' behaviors. It is likely that such situation could cause role model ambiguity in children.

Many centers in the capital propagate that their programs are aligned to the Montessori child education philosophy. None of the classrooms observed, however, had sand trays, clays, or objects that children can work with. One could possibly say that care givers have made maximum effort to make their classroom environment stimulating and child friendly to enhance interactions. In most cases, these materials were paper works rather than being objects with three dimensions. The interaction was more of paper and pencil rather than being human. Availability of learning and teaching materials is one opportunity. Access to these materials and their effective utilization is another opportunity. In spite of the fact that care givers tended to stick to the traditional chalk-talk method, these learning materials did not seem to serve any meaningful purpose. Their use value did not go beyond decorating classroom walls. The undesirable scenario was children did not have access to these materials. When these materials were used, it was through the mediator - the care giver. In most cases the interaction was formal the care giver took the initiative. Child-environment link was subordinate to this relational process. There was no direct contact between the children and these materials. In all classrooms observed there was no attempt to switch the interaction between care givers and children to children and physical materials posted on walls and

displayed on tables. The interaction process between care givers and children and child-to-material were all confined in sedentary style without any physical movement from one place to another.

A Case in Focus

Observational case study technique within the general mixed research approach was chosen to move from broad exploratory observation to more directed data collection procedure and analysis of situations in a selected center. This approach helped to identify particular center type with atypical characteristics in program implementation. Case analysis of a community-based center type is narrated below.

A day before my observation, I took an appointment for a classroom visit. I arrived at 8:00 a.m. The guard was there. Very briefly I introduced myself and the purpose of my visit. He listened with curiosity and advised me to stay outside the gate until the director and caregivers arrive. Early comers stayed with me outside the gate. They too were not allowed to get into the compound before the arrival of the management and care givers. Some of the children came from distant places walking all the way without being escorted by a parent or any other significant person. I saw a good number of them, their faces covered with sweat and/or their clothes spoiled with mud – possibly a sign for walking a long way. Many of the adults who escorted the children drop them at the gate and hurriedly ran away to carry out their daily routines. The center is located along a road that serves pedestrians, carts, and vehicles. It is not difficult to imagine that these children are vulnerable to physical abuse. The guard plays dual roles. He takes care of the children till the arrival of care givers. He also offers custodial service.

The center is supported by Norwegians. It was meant to support poor children in the community. Parents are from the low income section of the population, such as daily laborers, petty traders and the like, with

meager or no substantial income. Children are screened on the basis of their poverty status to get access to the center. *Kebele* administrations verify their poverty status. Once three urban dwellers give their testimony about their impoverished home environment, they are entitled to join the center.

Some children come without lunch boxes. During lunch time, the luckiest ones' eat while the have-nots stay outside. Some parents bring a piece of bread late in the afternoon for those who did not carry their lunch boxes. Poverty deprives basic biological needs. Its lasting effect is physical as well as a psychological one. It is a threat to the child's ego development. It is touching to see a child sitting bewildered while his peer mate enjoys something from his lunch box. Most Ethiopian children grow under severe deprivation. These children deprived of food, deprived of hygienic environment, and deprived of affection; grow in a vicious circle of poverty.

At 3:30 pm it was time to go home. Everybody is hurried to leave the compound. Again the luckiest ones find a close relative or a parent waiting to pick them. The unfortunates should again stay outside the gate until somebody comes and picks them. At times this might last until late evening. I learnt that children who are not picked timely are products of broken family or children who are living in a turmoil family environment. A girl once stayed until late evening. It was her father's responsibility to pick her. He was a drunkard. He was not able to discharge his parental responsibility. She had to stay until 9:00pm. Still no body was there to mind her. The guard reported the case to the nearby police station. The police threw the case back to the guard. Somehow the guard managed the problem and took the girl to her home late evening. A number of child abuse cases are possible consequences of such neglect and rejection within the child's home environment.

Discussion

The general objective of this research was to describe the contexts that shaped the quality of care giver child interaction in center-based contexts in purposively selected ECCE centers at Akaki-Kality Sub city, Addis Ababa City Administration.

The analyses showed that 65 % of the observed classrooms fell below the mean value indicating that care giver child interaction was below the overall mean value. Analyses from the qualitative data brought a number of scenarios that enhanced or impeded care giver child interaction.

The issue of space as it relates to the concept of place attachment in the literature of environmental psychology has important connotation in understanding quality of interaction in ECCE centers (Read, 2007). Many of the observed centers do not meet the minimum requirements in terms of design and set up to promote quality care giver child interaction. The private ECCE buildings in most cases were built for residential purposes and now converted to ECCE centers with limited space both internally and externally. Since the content of preschool curriculum (MoE, 2009) is an amalgam of indoor and outdoor activities, it is in rare cases we encounter a physical environment that supports care givers and children's outdoor activities.

A developmentally appropriate ECCE program calls for configuring the physical environment to suit age appropriate activities. Space constraint impeded access to learning materials. Data captured during classroom observations suggested that in classrooms with child-sized furniture and appropriate class size, care givers were seen configuring and reconfiguring the sitting arrangement of children to suit different purposes and promote easy flow of interactions in multiple directions. This opportunity helped children to have eye- to- eye contact with each other. The situation brought the different stimulating objects and

materials on the four sides of the walls to the perspective of children. Moreover, it helped the care givers to move in between the rows to address specific problems of individual children. This situation, however, was an exception rather than the rule. Many of the observed classrooms had fixed sitting arrangement that resembled the situation in the primary schools. This forced both care givers and children to behave in a predetermined pattern. In classrooms observed, for example, children's drawings, pictures and objects were posted and placed on the rear walls and display tables. This largely reduced the stimulating effect of the materials and impeded the development of children's imagination to be gained from associating what the teacher was saying with the contents of these objects and drawings. One possible explanation for lack of individual support and care givers confinement to the front side of the classrooms could be the effect of these cluttered spaces.

Open spaces allowed care givers and children to interact to the maximum thereby extending children's imagination and creativity through dancing and playing. As noted by Lorenzo-Lasa, Ideishi and Ideishi (2007), preschool movement and dance programming brings a multi-layered experience to children of all abilities and can also reinforce math and logic concepts through rhythm and patterns of beat and tempo. The high tempo in interaction between care givers and children during flag ceremony supports this assertion.

Piaget's constructivist theory (Miller, 1996) suggests the importance of environmental exploration for children to construct their cognitive schema. Young children in their early years, who are in the preoperational period, learn through reciprocities with their social milieu and physical environment. It is through self initiated interaction and guided participation in the environment that their imagination and thinking develops.

In the African context the acculturation of the child which Pence and Nesamenang (2008) termed as "indigenous pedagogy" is based not on instruction but participatory self-education process. This can be achieved through "guided participation" (Vogler, Crivello and Woodhead, 2008) from care givers and peers. In this view, children contribute to the construction of their learning through their own expectations and through their interaction with caregivers. Classroom observations, however, showed that the scope and quality of children's interaction with care givers and objects in their environment was limited and confined by restrictions and instructions.

Verbal communication was seen to be the overwhelming discourse in the interaction process. It is true that children can learn through observation and modeling of care givers' behavior. But such kind of learning by no means is a guarantee for children's learning. The chalk-talk method does not give adequate opportunity for the child to be involved in the same way as the hands-on process oriented method. According to Miller (1996) the more often a child engages in an experience, the more the learning is cemented.

Materials for tactile play such as water, sand, clay, as suggested by the Montessori approach were missing in the centers. Except sliders, Merry Go Round, and Swinging, other play materials that enhance gross motor development were not in place. Games and puzzles that trigger children's thinking and fine motor activities were not found as part and parcel of the ECCE environment. This situation indeed seemed to limit the scope and quality of care giver child interaction and made the process to take place in monotonous and repetitive pattern.

The observation demonstrated that care givers tended to expect children to be highly loyal and obedient regardless of time and space. In many instances the interactions were bracketed by 'do's and don'ts'. Care givers' behavior such as placing high value on obedience, for example, saying 'don't talk', 'cross your hands on your chest', 'hands on chest' and the 'don't move' remarks are likely outcomes of lack of

proper scheduling of activities and lack of knowledge about the meaning of developmentally appropriate care giver child interaction. Unfortunately, many of the care givers assumed quieter classes and quieter children as signs of discipline and desirable behavior. As commented by Miller (1996), such care givers assume that good care giving is making the classroom quiet and confine children to their seats.

Positive interaction is not limited to emotional attachment. It is not limited to showing feeling of warmth, sincerity, enjoyment and patience to children. Positive interaction includes care givers' behavior such as provision of choices, facilitate opportunities for self-development, encourage children to exhibit prosocial behavior, and provide the opportunity to work in small groups. According to Miller (1996), success in the classroom is measured in terms of children's involvement, productivity, enthusiasm, self-esteem, social skills, literacy development, both oral and written communication skills, problem-solving skills, and independence in a social and learner sense.

In addition to ensuring quality care giving, the preschool curriculum (MoE, 2009) emphasizes practicing early stimulation and learning through the use of play, learning materials and active learning methods such as exploration, experimentation, observation and discussions in multiple ways with children and among children themselves to enhance school readiness. Classroom observations, however, showed that the type and quality of interaction between care givers and children was limited to the development of numeric and literacy abilities with little or no attention to other aspects of development such as prosocial behavior and communication skills. One possible explanation for this imbalance could be care givers' lack of adequate training and knowledge on the importance of holistic approach to early childhood care and education program.

In some cases, as pointed out in the analyses section, care givers in the newly opened 0-grade government-owned centers have made a

horizontal shift from the primary school teaching to preschool teaching. This is one possible contributing factor for low quality of care giving in these centers. This argument is consistent with Nyamweya and Mwaura's (1996) assertion about the situation prevailing in Kenya. They stated that because primary school teacher training does not include training in early childhood education and the primary school curriculum is not harmonized with that of ECDE, there is a disconnection between primary schooling and ECDE.

Implications of the study for improved quality caregiver child interactions

- In most of the observed classrooms, activities were care giver dominated. Environmental exploration, more specifically the opportunity for children to make choices was not in place. The leadership of the centers needs to encourage care givers to practice episodes of shared thinking and activity with children to promote quality care giver child interactions.
- Flag ceremonies are niches that witnessed the importance of outdoor activities for holistic development of preschool children. ECCE center management should encourage care givers to implement the preschool curricula through play-based activities rather than limiting children within the four walls. Effective child pedagogy is both caring and providing diverse learning experiences and play environments.
- Significant differences were observed among individual pre-school settings and their impact on children's development. There are observable differences among centers in terms of structural and process aspects of ECCE programs. Hence, there is a need for City Administration Education Bureau to reduce this gap through setting and implementing standard assurance measures.

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