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**Final Report
on
Formative Evaluation to assess outcome of
Caregiver's Education by Trained
Front Line Workers (FLW)**

**Submitted To
UNICEF**

**Prepared & Submitted by
Syed Jahangeer Haider, Dr. Ph. (U.Texas), MPH (Berkeley)
Managing Director, READ**

**Designed and conducted by
Research Evaluation Associates For Development Ltd. (READ)
House # 27/1, Road # 13/A, Dhanmondi R/A, Dhaka
Phones: 9132425 & 9111588; Mobile # 0189-224268, Fax: 88-02-9132425
E-mail: read@bdcom.net and read@bdmail.net; Web: www.readbd.org**

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Project Key Personnel

- ◆ **Dr. Syed Jahangeer Haider** **Principal Investigator**
 Managing Director, READ
- ◆ **Dr. Hasnul Alam** **Co-Principal Investigator**

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Abbreviations

BINP	Bangladesh Integrated Nutrition Project
BRAC	Bangladesh Rural Advancement Committee
ECD	Early Childhood Development
FGD	Focus Group Discussion
FLWs	Field Level Workers
FLWs	Front Line Workers
FWA	Family Welfare Assistant
GOB	Government of Bangladesh
GS	Grameen Shikkha
HA	Health Assistant
HR	Human Resource
MOHFW	Ministry of Health and Family Welfare
MOWCA	Ministry of Women and Children Affairs
NGO	Non Government Organization
NIPORT	National Institute of Population Research and Training
NNP	National Nutrition Project
PCG	Primary Caregivers
READ	Research Evaluation Associates For Development
RFP	Request for Proposal
TOR	Terms of Reference
TOT	Training of Trainers
UNICEF	United Nations Children's Fund

Table of Content

	Page #
Executive Summary	i-viii
Chapter I: Introduction: Background, Project Concept and Study Objectives	1-2
Chapter II: Study Design and Methods	3-6
Chapter III: Data Collection	7-11
Chapter IV: Sample Profile	12-16
Chapter V: Findings and Discussions FLWs Knowledge, Skills and Practices	17-28
Chapter VI: Findings and Discussions Caregivers' Knowledge, Skills and Practices	29-42
Chapter VII: Findings of Qualitative Investigations	43-52
Chapter VIII: Implications and Recommendations	53-58
References	59
Appendix -1: List of Sample Clusters	

Executive Summary:

Early Childhood Development (ECD) in brief refers to unfolding the full potential of child's emotional, cognitive, social and linguistic skills. Focus of programs for children during early childhood period is given primarily on survival and physical growth with very little attention on ECD. To overcome this situation, the ECD project was launched by The Bangladesh Shishu Academy, under the Ministry of Women and Children Affairs (MOWCA) as part of the current five-year (2001-2005) Country Program of Cooperation between the Government of Bangladesh (GOB) and UNICEF. The project aims to enhance the capacity of caregivers to support the mental development of children from conception to five years of age. The project has four main components or sub-projects: Advocacy, Social Mobilization and Communication; Caregiver's Education on ECD; Research and Innovation; and Networking and Capacity Building of Partners. One of the main strategies is to reach families directly through existing Government and Non Government (NGO) field level workers (FLWs) at the time of their routine contacts/interactions (e.g. home visits, fixed service delivery facility) with caregivers/family members.

More than 13,400 FLWs of Government (FWAs and HAs), Para Workers in CHT districts, BRAC and Grameen Shikkha have been trained in caregivers' education through the training outlets of NIPORT (FWAs, HAs and PWs: 3931), BRAC (Shastha Sebika, Shastha Kormi and BEP teachers: 8749) and GS (Group Leaders: 720) to disseminate ECD messages at family and community levels as well as at fixed facilities during service delivery. The project is now in its fifth year of operation. Current study is an attempt to assess the impact of Training on the frontline workers (Govt. and NGO workers) on their levels of knowledge acquired, skills acquired and practiced during post training periods on their abilities to disseminate messages related to ECD to care givers during household visits or other contact points in their respectively assigned communities. The specific objectives of the formative evaluation are to:

- a) Assessment of knowledge & skill of FLWs (HA/FWA and NGO workers) on ECD and their ability to disseminate messages related to ECD to caregivers during household visits or other contract points;
- b) Status of dissemination of ECD messages (both quantity & quality) to the caregivers/family members by the FLWs in their assigned catchments area;
- c) Status of caregivers' knowledge & understanding on importance of age appropriate interactive care in a safe & enabling environment for promotion of child development;
- d) Outcome of caregivers education in terms of practice of age appropriate interactive care by caregivers (mother, father, older siblings, grand parent) and creation of safe & enabling home environment;
- f) Effectiveness of various supportive activities e.g. TOT, FLWs training, Orientation of Upazila level managers and union level supervisors carried out so far.

For a comprehensive assessment of the training endeavors, the formative evaluation focused on the following target audiences: **Primary Target Audiences:** Frontline workers: Govt. and NGO Field Workers; Primary Caregivers: Mothers and Fathers with Child within age 0-60 months; **Secondary Target Audiences:** Master Trainers, Field Trainers, Upazila level managers and

union level supervisors of Govt and NGO partner agencies on supervision, monitoring and follow up of Caregiver's Education; and secondary Caregivers: Older Siblings, In-laws/Grand parents and elderly relatives. The methodologies for evaluation of the training performances included both quantitative and qualitative assessments.

In order to test the effectiveness of the interventions of early childhood development, a statistically representative sample size of 2160 (Mothers: 1440 and Fathers: 720) is crucial. To determine the sample size, 95% confidence interval was used. In order to reach primary caregivers, BBS sample vital registration system clusters were used in this study. A sample vital registration cluster (PSU) has on average 200 households. From each cluster 24 households were selected randomly. The total clusters for the study were $2160/24 = 90$. To capture early childhood intervention effect, the primary caregivers were interviewed in the proportion of 0.67 mothers and 0.33 fathers (i.e. out of 24 there were 16 mothers and 8 fathers). The study was conducted in 90 clusters from 17 districts. The distribution of the caregivers was: Pregnant mothers/Husbands of pregnant women = 360; Mothers and Fathers of child aged below 1 year = 360; Mothers and Fathers of child aged below 2 years = 360; Mothers and Fathers of child aged below 3 years = 360; Mothers and Fathers of child aged below 4 years = 360; and Mothers and Fathers of child aged below 5 years = 360. Following the sample design 670 FLWs trained by the three different agencies: NIPORT, BRAC and Grameen Shikkha (GS) were interviewed.

The mean age of the field workers of Govt. (FWA and HA) and Para Workers of CHTDB is higher (38 years) than those serving in BRAC (33 years) and in GS (30 years). Similarly, mean education level of the FLWs belonging to Govt. is also higher (11 classes on an average) than those in BRAC and GS (8 and 9 grades completed respectively). The completed family size (mean parity) of FLWs of the Govt. and GS is 2; those remaining in BRAC have on average 3 children. A wide gap persists between the mean monthly family incomes of the FLWs of the three different agencies. FLWs belonging to BRAC has the lowest family income in a month (4494 Taka), while FLWs belonging to GS has almost double (8217 Taka) family earnings than BRAC and FLWs belonging to Govt. has the highest family earnings between the three (10929 Taka), which is almost two and half times more than that of BRAC. Mean duration of services of the FLWs is also higher in case of Govt. (17 yrs.) which is followed by the FLWs belonging to BRAC (7 yrs.) and GS (4 yrs.). Salaries and length of services are positively correlated. Ninety percent of the field workers of Govt. are currently married, while the proportion currently married are 82 and 86% respectively in BRAC and GS.

Child rearing is ideally a joint responsibility performed by both the parents. To ascertain objectively how much responsibilities have been performed by whom (Mother/ Father), questions have been asked:

- To the Mothers directly to inquire about their roles regarding child rearing and again to the mothers to inquire about the fathers performing such roles; similarly
- To the fathers directly to inquire about their roles regarding child rearing and again to the fathers to inquire about the mothers performing such roles.

Interviews of primary caregivers (mothers and fathers of child within age 0-60 months) were carried out at 90 clusters of 17 Districts of ECD intervention. There is hardly any difference

between the background characteristics of the mothers across the three agencies. Mean age of the mothers is 25 years. Mean education level of the mothers and their husbands are 7th and 9th grade completed respectively and their mean parity is 2 children. Around three quarters (70-72%) of the respondents reside in nucleus families, while their mean number family member is 5. An overwhelming majority (86-92%) of the mothers are housewives. Overwhelming majority of the respondents (83-91%) reside in their own residences. Almost all the respondents (96-100%) of different areas have access to safe drinking water (tube well). About one third of the respondents use sanitary latrines (28-36%) while the majority of them (46%) use pit latrines and about a quarter of them have open latrines or no latrines. About half of the respondents are poor (including hard core poor) and half of them belong to non-poor category (middle and rich) (see operational definition used for this study at p. 16).

Similar to mothers' sample, there is hardly any difference between the background characteristics of the fathers across the three agencies. Mean age of the fathers is 32 years. Mean education level of the fathers and their spouses are 9th and 7th grades completed respectively and their mean number of child is 2. Around three quarter (69-76%) of the respondents reside in nucleus families, while their mean family member is 5. 86-93% of the respondents reside in their own residences. Almost all (99%) the respondents of different areas have access to safe drinking water (tube well). About a quarter of the respondents use sanitary latrines (23%), while the majority of them (42%) use pit latrines and about a one third of them have open latrines or no latrines. About half of the respondents are poor (including hard core poor) and half of them belong to non-poor category (middle and rich) (see operational definition used for this study at p. 16).

Findings and Discussions:

Transforming the huge manpower over a long period into resources is a development challenge. Early Childhood Development is an important step towards achieving the same objective. The special program on ECD launched by Bangladesh Shishu Academy with support from UNICEF in collaboration with the govt. sector and NGOs in 17 districts and 90 Upazillas is a major step towards building a nation wide program on the same. Training of the Field Workers (FLWs) is an important program intervention in developing the ECD programs at the grass root levels. The current assessment of the training programs of the FLWs is vital in not only improving future training investments in the area but also for strengthening the implementation of ECD programs with the target audiences: the primary and secondary caregivers of child.

The assessment of the training programs has been conducted in a comprehensively designed evaluation study, which focused on:

- Investigating the quality and strength of the training programs;
- Evaluating the achievements of the FLWs in terms of knowledge and skills on dissemination of messages to the target audiences by investigating with FLWs themselves (670) both quantitatively and qualitatively from the primary (2160 mothers and fathers) and the secondary care givers and in addition independent observations of the practices pertaining to care of the children at household levels was also conducted.

Process effectiveness of training programs:

The major findings regarding processes effectiveness of the training programs suggest that the training of FLWs was conducted as per schedule and manual.

The field trainers were pooled mostly from among the training manpower of the Implementing agencies: NIPORT, BRAC, and GS and they were academically adequately qualified (masters degree holders, doctors). All the field trainers received training as trainers (TOT) for a period of 4 to 5 days. Three-fourths (75%) of the field trainers opined that the duration of training for FLWs was adequate, 25% of them did not, however, think it as adequate. Those who thought the duration of FLWs training as inadequate, they suggested training programs to be extended from 3 to 10 days.

Intensive interviews with the Program Managers suggested (52) that all of them (except one) participated in the ECD program and they have one-day orientation on ECD program.

Outcome effectiveness of the training programs:

About 90% FLWs of BRAC and GS could demonstrate correct knowledge on cut off age of a child and that of early childhood, while 22-28% of the Government FLWs did not have correct knowledge in this regard. A larger proportion of the field workers of BRAC mentioned all the three specific indicators of physical growth compared to those from the Govt. and GS. Majority of the FLWs of GS failed to mention changing shapes of child's body and gains in weight.

An overwhelming majority of the FLWs (88 and 85%) could mention about observation and participation to games as processes of learning by the children, while four processes, such as movement, making comparisons, agility and becoming curious, have been mentioned by only one tenth to one fifth of the respondents (11-19%). Imitation and asking questions (enquiring) as processes of learning have been mentioned by more than half to two third of the respondents. As many as seven components on the processes of learning (during training, the FLWs were oriented about as many as 15 different ways of learning) have been referred by about one third to one fourth of the respondents.

Most of the FLWs reiterated that interactive care should be ensured every day in a repeated manner (87%) and using the sensory organs (70%) where touching, embracing and other forms of care can be transmitted to the child. Most of the FLWs of BRAC (70%) and Govt. (60%) expressed that a child needs to grow in a clean and healthy environment. Excepting this component, the FLWs on all other important social, behavioral and environmental contexts are very poorly informed.

FLWs applied interpersonal contacts (52%), followed by Group discussions (47%) and monthly large meetings (13%) as methods of dissemination of ECD messages in the communities. Both the FLWs from Govt. and BRAC gave almost equal priorities to interpersonal and group contacts, but those from GS overwhelmingly prioritized group contacts (72%) and very poorly mentioned interpersonal contacts (22%) as means of disseminating ECD messages.

On average in a month, through interpersonal contacts an FLW disseminates ECD messages to 38 caregivers and through Group Contacts to an additional 65 caregivers. One may presume that an FLW contacts at least 100 care givers a month, of whom majority are mothers. An FLW conducts on average 5 group meetings in a month. Basing on the estimates of the FLWs themselves, the performances of the HAs and FWAs on the coverage of beneficiaries through interpersonal and group contacts is comparable (table 1, chapter IV). Here it may be mentioned that FWAs by their assignments in their parent department (FP) are 100% female field workers, while the majority (about 75%) of the HAs are males. Hence, it may be prudent to engage both the cadre of workers in order to ensure a balance between contacts among male (Fathers) and female (Mothers) beneficiaries.

Analyses of findings demonstrate that the field workers usually recollected relatively easier lessons, such as those related to physical growth, while the difficult concepts, such as those related mental development, particularly referring to gender perspectives, could not be specified by a large number of FLWs. This signifies that there could be scope for further improvement of the training programs by ensuring intensive follow-up of the trainees during training in order to assess their capacity to comprehend and then reproduce the concepts in the most understandable manner (through intensive practice sessions). Needless to mention that most of the FLWs recommended extension of 3 day training program to an increased number of days, which would certainly facilitate designing practical training in the communities where they work. The authorities in the UNICEF, GOB and allied agencies may reconsider to find out through a comparatively smaller group training practices the reasons for such failures in comprehending or in recollecting the difficult concepts of ECD by the FLWs.

About three fourth of the mothers claimed that they were contacted by an FLW in last three months; while on the contrary, only half of the fathers said so. However, it was interesting to note that the caregivers in the catchments served by GS, claimed that more fathers than the mothers were exposed to such contacts. One of the reasons could be that the in the catchments of GS, the FLWs mentioned higher proportion of group meetings (Uthan Baithak) than interpersonal contacts, which might imply that groups were in mixed gender.

Interestingly, along the catchments served by the Govt. FLWs, the performances of FWAs are observed comparatively better than the HAs, as three quarters (77%) of the mothers were visited by an FWA (who is a female) in last three months. Almost a comparable proportion (74%) mothers also reported that they received ECD messages from the FWAs. Contrarily, about half of the mothers were visited by HAs in last three months (58%) and almost an equal proportion (56%) of the mothers reported that they received ECD messages from the HAs (who are mostly males). However, not much of difference was observed as regards contacts with fathers by the HAs and the FWAs and also on dissemination of ECD messages.

More than one-third to half (37-51%) of the caregivers reported that their level of knowledge increased on good rearing of child (physical and mental care of child; ensure good behavior and fulfilling their desires) and about one-third of them reported of increasing knowledge on prohibition of violence against child (28-37%) and making provisions for games and toys for the child and allowing the child to play (31-34%).

More than half (50-65%) of the respondents have knowledge on providing adequate nutritious food and maintenance of cleanliness for proper physical growth of a child. Colostrums feeding was mentioned by 40-42% of the respondents which was followed by breast feeding (27-31%) and consultation with doctors during illness (27-31%). A very meager proportion of the caregivers are aware about protecting the child from dangers as the measure of proper physical growth.

In case of antenatal care, majority (58-68%) of the caregivers stressed the necessity of routine check up during pregnancy in order to ensure healthy mother and newborn, while only one-fifth to one-third (20-33%) of the caregivers informed about receiving regular health check up during last pregnancy. So, a wide gap persists between the knowledge and practice of the caregivers in case of antenatal visits.

Overall performance of the caregivers in providing different interactive cares as appropriate for the respective age of the child is not satisfactory. With very few exceptions, only about a quarter or even less than a quarter of the caregivers reported providing different interactive cares to ensure proper growth and development of their child.

On interactive cares like feeding, help child to stand and walk, help child to grow by stretching, climbing and running, make child to eat, urinate and defecate on their own the mothers remain major caregivers comparatively in all ages, but father's roles increase with the increase in age of the child, particularly from late age within 7 to 18 months and above.

On interactive cares like eye contacts and making sounds during feeding of child, whispering sounds and rhymes/encourage child also to sing, stimulating child with caring sound, arousing curiosity by asking questions and responding, remove fear, stimulate child to solve small problems, allow child to express and give views, use pictures and books and encourage to draw, use stories to teach child, praise child for their performances, and make child inquisitive by asking questions the roles of fathers remain consistently lower than the mothers, except in age groups from 37 to 60 months.

On interactive cares like playing hide and seek, indulging child to light exercises, keeping hanging toys within reach, participating with child in playing with hands and legs, helping building routine habits, like brush teeth, hand washing, and dressing both mothers and fathers play comparable roles with slight edge of mothers over the fathers.

On several interactive cares, like making the child aware of the names of objects in the surroundings, encouraging child to identify organs of the body, create opportunities for the child to play with others and cooperate, help correcting vocabularies and learn language, encourage child to perform family duties and assume responsibilities, give ideas about environment, and teach child manners/ behave with elders, the findings evidence that the fathers contribute (interact) more than the mothers.

In about three fourths of the households (76%), the children were observed to have been participating in games and plays, while in about a quarter of the households (24%) the children were not participating in games and plays. The children, who were engaged in playing, were

participating in different indigenous games and with both locally crafted toys and toys purchased from markets.

Findings suggest that some of the children were not at all engaged in playing (25%); some were found playing alone (9%) and 40% of the children were playing within their home environment with mothers (14%), with elderly siblings (15%), with other family members (10%) and with servants (1%). Surprisingly, only 26% of the children were playing with other children.

FGDs with secondary caregivers (older siblings, in-laws/grand parents and elderly relatives) revealed that the knowledge and practices of the secondary caregivers have improved on four components, such as ensuring immunization of the child, quality feeding (nutritious food), treatment of child during illness and detaching the child good manners; while the intimate care practices such as keeping the child clean, ensuring safe and secure environment, giving warm care, playing with child, interacting with child have remained rather neglected. The findings also suggest that the FLWs were not maintaining frequent contacts with caregivers other than the parents.

Implications, Recommendations and Conclusion:

The training program of FLWs, as an initial endeavor, may be adjudged to be effective and successful. However, in terms of gains at the level of beneficiaries (caregivers) both on knowledge and practicing the desired behavior, data demonstrate variances on several variables between the three agencies: Government, BRAC and GS. The findings suggest that ECD is a preferred practice of the beneficiary targets, the care givers, particularly the mothers. The program deserves to be considered as an important endeavor with scope for national level implementation with multisectoral involvement.

Recommendation 1: The trainers and the program managers suggested arrangement of repeat training of the FLWs.

Recommendation 2: The trainers also suggested operation of systematic supervisory system backed by proper monitoring and reporting (feedback).

Recommendation 3: Although training manuals were supplied, but the materials like flip charts were not adequate and some of the trainers suggested that in future training programs may arrange for film shows.

Recommendation 4: Future ECD at the grass root levels may emphasize on group contacts (Uthan Baithak) while not reducing the importance of inter-personal contacts.

Recommendation 5: Strong monitoring system would facilitate identifying the specific area wise weaknesses of the programs and thereby help build programs with specific message focus and priorities.

Recommendation 6: Future training programs may emphasize more on supervised practice training sessions with priority on components pertaining to emotional and socialization skills.

Recommendation 7: Intensive orientation may be conducted targeting the care givers on arranging for playing items and commodities with pre planned set of such items by the implementers.

Recommendation 8: Safety and security of the child both within and outside the home is essential, which may be disseminated not only by the field workers but also through using mass media. Such programs need to depict realistic community situation and needs.

Recommendation 9: To ensure uniformity of performances by the implementing agencies, the easiest and the quickest way is to arrange combined sessions between BRAC, GS and NIPORT in order to share their experiences mutually.

In conclusion, it is felt that there are not only scope of remodeling the training programs, but making necessary shifts in the priorities of training focus, such as give more emphasis on the contents on mental development, which the FLWs are yet to master their comprehension and skills needed for community level dissemination.

Chapter I

Introduction: Background, Project Concept and Study Objectives

Early Childhood Development (ECD) in brief refers to unfolding the full potential of child's emotional, cognitive, social and linguistic skills. Focus of programs for children during early childhood period is given primarily on survival and physical growth with very little attention on ECD. To overcome this situation, the ECD project was launched by The Bangladesh Shishu Academy, under the Ministry of Women and Children Affairs (MOWCA) as part of the current five-year (2001-2005) Country Program of Cooperation between the Government of Bangladesh (GOB) and UNICEF. The project aims to enhance the capacity of caregivers to support the mental development of children from conception to five years of age. One of the main strategies is to reach families directly through existing Government and Non Government (NGO) field level workers (FLWs) at the time of their routine contacts/interactions (e.g. home visits, fixed service delivery facility) with caregivers/family members. The project has four main components or sub-projects:

- Advocacy, Social Mobilization and Communication;
- Caregiver's Education on ECD;
- Research and Innovation; and
- Networking and Capacity Building of Partners.

Significant progress has been achieved in the training of Front Line Workers (FLW). More than 13,400 FLWs of Government (FWAs and HAs), Para Workers in CHT districts, BRAC and Grameen Shikha have been trained in caregivers' education through the training outlets of NIPORT (FWAs, HAs and PWs: 3931), BRAC (Shastha Sebika, Shastha Kormi and BEP teachers: 8749) and GS (Group Leaders: 720) to disseminate ECD messages at family and community levels as well as at fixed facilities during service delivery. Caregiver's education at family and community level by trained FLWs during household visit at regular interval is ongoing. Action is also underway to incorporate ECD module into basic and refreshers training of FLWs of Government and partner agencies to make it part of their routine training instead of organizing separate training on caregivers education on ECD.

The project is now in its fifth year of operation. There is a plan for gradual expansion of the caregiver's education package to other geographical areas through front line workers/ service providers. This formative evaluation was planned to assess outcome of caregiver's education in order to make necessary modification/ course correction for expansion during next phase (2006-2010) of the project.

Current study is an attempt to assess the impact of Training on the frontline workers (Govt. and NGO workers) on their levels of knowledge acquired, skills acquired and practiced during post training periods on their abilities to disseminate messages related to ECD to care givers during household visits or other contact points in their respectively assigned communities. The evaluation also assessed the levels of changes in terms

of achieved awareness and or practices initiated or inculcated by the targeted primary and secondary caregivers on ECD care giving principles. Such assessment helped to ascertain the efficiencies and effectiveness of the training programs conducted and imparted for the FLWs. The ultimate objective was to obtain learned experiences and recommendations emerging out of the assessment so that training programs in future could be improved to a wider geographical area.

Purpose of the assignment

The purpose of the assignment is to assess outcome of caregiver's education by trained Front Line Workers (FLWs) in order to make necessary modification/course correction for gradual expansion of the caregiver's education package to a wider geographical areas and for incorporation of the ECD module into the different ongoing basic & refresher training courses of the Govt. institutions and NGO partner agencies.

The **specific objectives** of the formative evaluation are to:

- a) Assessment of knowledge & skill of FLWs (HA/FWA and NGO workers) on ECD and their ability to disseminate messages related to ECD to caregivers during household visits or other contract points;
- b) Status of dissemination of ECD messages (both quantity & quality) to the caregivers/family members by the FLWs in their assigned catchments area;
- c) Status of caregivers knowledge & understanding on importance of age appropriate interactive care in a safe & enabling environment for promotion of child development;
- d) Outcome of caregivers education in terms of practice of age appropriate interactive care by caregivers (mother, father, older siblings, grand parent) and creation of safe & enabling home environment;
- e) Effectiveness of various supportive activities e.g. TOT, FLWs training, Orientation of Upazila level managers and union level supervisors carried out so far.

Chapter II

Study Design and Methods

FLWs of Government (FWAs and HAs), Para Workers in CHT districts, BRAC (Shastha Sebika, Shastha Kormi and BEP teachers) and Grameen Shikhhka (Group Leaders) have been trained in caregivers' education in selected districts to disseminate ECD messages at family and community levels as well as at fixed facilities during service delivery. The training programs conducted include the following:

- ✓ Development of training package for caregiver's component
- ✓ Five day training of master trainers
- ✓ Four day training of field trainers on the package
- ✓ Three day training of Front Line Workers (FLW) of Govt. and NGO partner agencies
- ✓ One day orientation of Upazila level managers and union level supervisors of Govt and NGO partner agencies on supervision, monitoring and follow up of caregiver's education.

For a comprehensive assessment of the training endeavors, the formative evaluation focused on the following target audiences:

- **Primary Target Audiences:**
 - ✓ Frontline workers: Govt. and NGO Field Workers
 - ✓ Primary Caregivers: Mothers and Fathers with Child within age 0-60 months
- **Secondary Target Audiences:**
 - ✓ Master Trainers
 - ✓ Field Trainers
 - ✓ Upazila level managers and union level supervisors of Govt and NGO partner agencies on supervision, monitoring and follow up of Caregiver's Education
 - ✓ Secondary Caregivers: Older Siblings, In-laws/Grand Parents or Elderly relatives.

The methodologies for evaluation of the training performances included both quantitative and qualitative assessments. The study methodology envisaged evaluation of the proposed training in the following three broad levels pertaining to the TOR: specific objectives:

- **Efficiencies of Planning and Implementation of Training by NIPORT, BRAC and GS**, such as training curricula, training duration, training facilities and resources used and participation of trainees and trainers in the training sessions to be assessed obtaining information on retroactive (recollection) basis from the trainees (FLWs), trainers and also the 17 training sites.
- **Effectiveness of Training in improving the level of knowledge, awareness and job performances of the trainees** including their roles and responsibilities in completing the assignments to be assessed; and

- **Impact of Training on Beneficiaries in the catchments** (during post training period) to be measured in terms of improvement in the beneficiaries' level (Mothers and Fathers with children within age 0-60 months) of knowledge, awareness and practices (acceptance) promoting positive care giving behavior.

Sampling Methodology and size of the Study:

The purpose of the study is to assess the impact of the interventions on early childhood development. The frontline-field level workers (FLWs) from both Govt. (HA/FWA/Para Worker) and NGOs provided the interventions to primary caregivers (mothers and fathers). The FLWs received training on early childhood development and they in turn provided education on early child development to primary caregivers (mothers and fathers) and secondary caregivers (other relatives of the family). A total of 13,400 FLWs spreading over 17 districts were trained for this purpose. The target primary target sample was mothers with pregnancy and children aged under five years.

In order to test the effectiveness of the interventions of early childhood development, a statistically representative sample size is crucial. To calculate the sample size required for accuracy in estimating proportions we need to know the reasonable estimates of key proportions to be measured in the study i.e. what is the proportion of mothers who gave breast milk to a newborn baby. What is the precision level we expect to have in the determination of sample size? Generally 5% precision is considered. Varying the precision level the sample size can be varied. In this particular case we set 2% precision level. To determine the sample size we used 95% confidence interval. On the basis of above the sample size n, was estimated by using the following formula:

$$n = Z^2 p (1-p) / d^2$$

Where n= the desired sample size

Z= the standard normal deviate, usually set at 1.96 at 5% level which corresponds to 95% confidence level.

The target proportion is p to have a particular characteristics and q = 1-p; in this case we used p= 0.237

The degree accuracy or precision level is d, which is considered 2%

Since clusters were used to interview the target sample, we need to consider design effect. A design effect of 1.24 was used to determine the ultimate sample size.

Putting the values p=0.237, (1-p)= 0.763, d=0.2 and the design effect =1.24, z = 1.96

The sample size is 2153. We consider it is approximately 2160

Determination of Clusters

In order to reach primary caregivers we considered clusters. BBS sample vital registration system clusters were used in this study. A sample vital registration cluster (PSU) has on average 200 households. According to the census 2001, about 12% children are under five. The total persons will be 200x5=1000 and since 12% are under five children, the total children were 1000x0.12=120.

Since on an average each household has 5 persons, the numbers of households, which have under five children, were 24 households. From each cluster 24 households were selected randomly. Among these 24 households there were caregivers who were pregnant at the time of survey were also interviewed in the survey to assess the care they received during the pregnancy for the newborn child. The total clusters for the study were $2160/24= 90$. To capture early childhood intervention effect, the primary caregivers were interviewed in the proportion of 0.67 mothers and 0.33 fathers (i.e. out of 24 there were 16 mothers and 8 fathers).

The detailed distribution sample is shown below:

- 17 Districts of ECD project intervention
- 90 clusters from 17 districts
- Total Primary Caregivers (mothers and fathers) targeted to be interviewed was 2160 (Mothers: 1440 and Fathers: 720) in the following distribution:
 - ✓ Pregnant mothers/Husbands of pregnant women = 360
 - ✓ Mothers and Fathers of child aged below 1 year = 360
 - ✓ Mothers and Fathers of child aged below 2 years = 360
 - ✓ Mothers and Fathers of child aged below 3 years = 360
 - ✓ Mothers and Fathers of child aged below 4 years = 360
 - ✓ Mothers and Fathers of child aged below 5 years = 360.

Qualitative Sample and Targets

Data were collected for in-depth and qualitative investigations, which included:

- ✓ Literature/Documents search of training documents: Undertaken adapting predesigned checklist to obtain information on the capacity, management, training sites, training packages, materials etc. of the respective training Centers.
- ✓ Intensive Interviews with Master Trainers: 3 per organization = 9, Field trainers: 2 per training center = 34 and Upazilla level Managers: 3 per training center = 51.
- ✓ FGDs with In-laws, grand parents or elderly relatives = 24 and FGD with Elderly Siblings = 10.
- ✓ Household level Observations with checklists: Randomly selected children within age 0-60 months at the households level: 1 household each at 90 clusters = 90.

Variables of Investigations

- A. Socio-demographic: Number of household members, Age of respondent, Household head: Male/Female, Educational status, Occupation, Religion, Types of household, Marital status, Household water source and Sanitation.
- B. Economic: Land holding size, Household assets: Radio/Cassette ownership, TV ownership, Goat/Sheep/Cattle ownership, Types of household, Daily food intake by: Child, Adolescents, Pregnant women, Lactating women, No. of meals per day, Income of individual and family: monthly and yearly, Expenditure for medicine, food and other basic minimum need.
- C. Training Related Variables: Types of training attended: Basic or Refreshers, Days attended or missed to attend training, Scores in the Pre and post test: Quality of training attended, Knowledge gained (level of Awareness), knowledge retained, Specific Skills acquired during training, Skills being practiced after training, Where training attended: With which NGO.
- D. ECD Variables: Care During Pregnancies, Preventive Childcare Measures: immunization, ORT, breast feeding, Child Care for Physical Growth and Mental Development, Care of Children with Disability, Development of Learning Skills: process of socialization, Behaviors resulting to Inclusion: discriminating between girl and boy child, Emotional Development, Curiosity, Confidence Building, Impact of Violence: physical and mental, Socialization Skill, Media Influences: use and exposure, Comparative Analysis of Caregivers' Practices by Income, Education etc.

Chapter III

Data Collection

Development of Data Collection Tools

The survey data were collected by trained and experienced interviewers using pre designed and well pre-tested data collection instruments both for quantitative and qualitative investigations.

To meet the objectives of the study the following data collection tools were developed and were approved by UNICEF:

1. Structured questionnaire for Front Line Workers: FWAs/HAs/NGO workers
2. Structured questionnaire for Primary Caregivers: Mothers and Fathers of child aged 0-60 months
3. Semi-structured questionnaire for in-depth interviews:
 - ✓ Master Trainers
 - ✓ Field Trainers
 - ✓ Upazila Level Managers
4. FGD guideline for FGDs with Secondary Caregivers:
 - ✓ In-laws, grand parents or elderly relatives
 - ✓ Elderly Siblings
5. Observation Checklist for children aged 0-60 months

Recruitment of Survey Manpower

Recruitment of adequate eligible manpower (both male and female) for collecting the data from the field was done by the research agency following the guideline of the project proposal. The recruitment criteria included their educational background, ability to interact with people, willingness to spend one month in the field and previous experience in other surveys. The distribution of recruited manpower for the survey was as follows:

- ✓ Supervisors —5
- ✓ Moderators for FGDs—5
- ✓ Field interviewers—22
- ✓ Data analysis staff (coder cum data entry operator)— Coders/Editors: 20 and Data entry Operators: 10

Training of Field Investigators

All the recruited manpower for field investigation was trained for 8 days (7 working days; from 27th August, 2005 to 3rd September, 2005). The training was conducted in a participatory method and all the trainees were found enthusiastic and spontaneous at different sessions. Initially, the training consisted of lectures on aims, objectives and methodology of the study, then explanation

of some important issues of Early Childhood Development project and finally it was upon how to ask questions, record responses and complete the questionnaires with role play between the participants. The training program was conducted by the resource persons of READ and was enriched by the active participation of the concerned resource persons from the three implementing agencies of ECD project (NIPORT, BRAC and Grameen Shikkha) and Research Experts from other organizations. The Principal Investigator of the survey constantly supervised all the sessions to ensure proper quality of the training.

Pre-Testing and Finalization of Data Collection Tools

Pre-testing of the questionnaire was performed in between the training program on 30th August, 2005 under intensive supervision. For the pretest the whole team was taken to Shibpur Upazila of Narsingdi district and they worked within the working areas of two different implementing agencies (NIPORT and BRAC). All the different types of data collection tools were completed several times by all the Field Investigators. The distribution of different types of questionnaires those were completed at field is shown bellow:

Table 1: Questionnaires used for pretests

Types of questionnaires	Completed during field practice/Pre-test
Structured questionnaire for Front Line Workers: FWAs/HAs/NGO workers	22
Structured questionnaire for Primary Caregivers: Mothers and Fathers of child aged 0-60 months	22
Semi-structured questionnaire for in-depth interviews: Field Trainers and Upazila Level Managers	4
Observation Checklist for children aged 0-60 months	2
FGD Guidelines	2

As the field practice was carried out at the fourth day of the training program so we have got a long time for reviewing of field experiences. Based on observations in the field and suggestions made by the team the data collection tools were further edited and finalized.

Collection of Data from field

At the end of the training program all the field investigators were briefed about their field assignment and overall management of data collection activities.

Five field teams were organized, and their area of work was clearly demarcated. Composition of a team was as follows:

- ✓ Supervisors: 1
- ✓ Moderators for FGDs: 1
- ✓ Field interviewers: 4/5

Prior to study of the field, necessary office orders from the three implementing agencies of ECD project (NIPORT, BRAC and Grameen Shikkha) were obtained to elicit necessary cooperation of the field offices of the respective agencies.

A well designed field movement plan for effective implementation of the survey was developed and all the team members for investigation were sensitized. Data collection was started on 4th September, 2005 and ended by 19th October, 2005.

During data collection a team consisting of two supervisors including a medical doctor visited both the districts for quality control of the data collection process. The Field Investigators were asked to ensure quality of data by:

- ✓ Obtaining consent and build rapport with the clients;
- ✓ Assuring confidentiality of the collected data and anonymity of the respondents;
- ✓ Following the instructions provided in the questionnaires for skipping, probing and recording responses;
- ✓ Covering the assigned working areas in the field according to the Field Movement Plan;
- ✓ Editing filled in questionnaire at the end of each day.

To ensure quality of data collection, 10% of the total interviews (FLWs and Primary Caregivers) were reinvestigated/re-interviewed by 2 (two) Quality Control Officers organized by READ. These were later compared with the original interviews. This reinvestigation gave us the scope of measuring the level of inconsistencies of data and rectification of some anomalies like miscalculation of dates and other lapses as well.

Each data collection team covered 16-19 clusters according to the Field Movement Plan. There was no remarkable constraint faced during the data collection period by the Field Investigators. Hundred percent of quantitative investigations and Ninety Eight percent of qualitative investigations were carried out. The data collection activities were completed in due time.

The distribution of the targeted (T) and completed (C) number of sample of both quantitative and qualitative interviews are shown in table 2, 3 and 4:

Table 2: Distribution of targeted and completed interviews of FLWs by districts

District	Interview of the FLWs							
	NIPORT		BRAC		GS		Total	
	T*	C*	T	C	T	C	T	C
1. Jessore	14	14	69	69	0	0	83	83
2. Barisal	6	6	14	14	0	0	20	20
3. Sherpur	13	13	40	40	0	0	53	53
4. Gazipur	0	0	7	7	24	24	31	31
5. Narsingdi	14	14	21	21	0	0	35	35
6. Mymensingh	10	10	68	68	0	0	78	78
7. Dhaka	1	1	-	-	-	-	1	1
8. Manikgonj	-	-	-	-	12	12	12	12
9. Bogra	17	17	71	71	0	0	88	88
10. Dinajpur	20	20	92	92	0	0	112	112
11. Moulavibazar	15	15	21	21	0	0	36	36
12. Hobigonj	4	4	8	8	0	0	12	12
13. Changpur	9	9	17	17	0	0	26	26
14. Comilla	7	7	9	9	0	0	16	16
15. Khagrachhari	30	30	0	0	0	0	30	30
16. Rangamati	21	21	0	0	0	0	21	21
17. Bandarban	16	16	0	0	0	0	16	16
Total	197	197	437	437	36	36	670	670

*T – Targeted; C – Completed

Table 3: Distribution of targeted and completed interviews of Primary Caregivers (Mothers and Fathers of child aged below 5 years) by districts:

District	Primary Caregivers (Mothers and Fathers of child aged below 5 years)													
	Pregnant		>1		>2		>3		>4		>5		Total	
	T	C	T	C	T	C	T	C	T	C	T	C	T	C
1. Jessore	48	44	48	49	48	51	48	53	48	47	48	44	288	288
2. Barisal	20	16	20	23	20	19	20	21	20	20	20	21	120	120
3. Sherpur	24	26	24	26	24	24	24	24	24	22	24	22	144	144
4. Gazipur	20	16	20	23	20	23	20	23	20	18	20	17	120	120
5. Narsingdi	16	18	16	19	16	17	16	13	16	14	16	15	96	96
6. Mymensingh	36	44	36	38	36	35	36	35	36	34	36	30	216	216
7. Dhaka	4	4	4	5	4	4	4	4	4	5	4	2	24	24
8. Manikgonj	4	4	4	3	4	4	4	4	4	4	4	5	24	24
9. Bogra	48	51	48	57	48	50	48	44	48	43	48	43	288	288
10. Dinajpur	52	53	52	82	52	48	52	41	52	41	52	47	312	312
11. Moulavibazar	20	26	20	25	20	20	20	15	20	18	20	16	120	120
12. Hobigonj	4	5	4	4	4	5	4	3	4	4	4	3	24	24
13. Changpur	16	16	16	16	16	16	16	15	16	17	16	16	96	96
14. Comilla	8	8	8	8	8	8	8	8	8	8	8	8	48	48
15. Khagrachhari	12	13	12	12	12	12	12	11	12	12	12	12	72	72
16. Rangamati	16	16	16	17	16	15	16	16	16	16	16	16	96	96
17. Bandarban	12	11	12	13	12	12	12	12	12	12	12	12	72	72
Total	360	371	360	420	360	363	360	342	360	335	360	329	2160	2160

*T – Targeted; C – Completed

Table 4: Distribution of targeted and completed Qualitative Investigations

Methods of investigation	Target Respondents	Total number	
		Targeted	Completed
Intensive interviews	Master trainers	9	8
	Field trainers	34	32
	Upazilla level Managers	51	51
FGDs with Secondary Care Givers	In-laws, grand parents or elderly relatives	24	24
	Elderly Siblings	10	9
Household level Observations with checklists	Randomly selected children within age 5 years or below at the households level	90	89

Data Processing:

Field Editing: Field Supervisors supervised household interviews and were available to answer any question that the interviewers had while interviewing. Each night the Field Supervisors met the interviewers discussed about the problems in the questionnaires. They also carefully reviewed the interviews conducted that day and randomly crosschecked responses to certain questions. Filled-in questionnaires were thoroughly checked by the interviewers and Field Supervisors after completion of the interviews and before sending these to the central office for processing.

Data Analysis: Data analysis Phase overlapped with the Data Collection Phase by three weeks.

Central Editing: Before coding and data entry, editors reviewed questionnaires for quality and data entry errors following a set of predetermined rules.

Coding: Many Questions were structured in pre coded design.

Data Entry: All coded data were entered in the Computers. A data entry package was developed using SPSS and D-Base. All possible in-built conditional, logical and range checking procedures were included in the entry package to detect mistakes during data entry. The data entry team was given appropriate orientation training on the entry package.

Data Cleaning: Using SPSS, frequencies were run for all variables. In this way, outlying values or errors identified. If any error occurred due to data entry (error), the value was corrected.

Frequencies tables (one way and multiple ways) were constructed. Analysis of variables and relationships were done using statistical techniques and Computer soft-wares.

Chapter IV

Sample Profile

Background characteristics of the FLWs

Following the sample design selected number of FLWs trained by the three different agencies: NIPORT, BRAC and Grameen Shikhhkha (GS) were interviewed. NIPORT trained the Govt. front line workers: Health Assistant (HA) and Family Welfare Assistant (FWA) and Para Workers (PWs) of ICD project under CHTDB; BRAC trained their Shastha Sebika, Shastha Kormi and BEP teachers and Grameen Shikhhkha (GS) trained the Group Leaders as the front line workers to disseminate ECD messages to the caregivers.

NIPORT has provided training to Govt. front line workers (HAs and FWAs) on ECD through field trainers (Faculty members) of 12 Regional Training Centers (RTC) and 4 Family Welfare Visitor Training Institutes (FWVTI) located at the regional levels. HAs and FWAs are the permanent field cadre workers respectively of the Directorate of Health Services and the Directorate of Family Planning and their basic required educational qualifications are matriculates for FWAs and Intermediate qualified for HAs. Each of them is in charge of Unit within a Ward under a Union having responsibilities of covering (visiting) 200 households in each round per two month. They are supervised by AHI, FPI and HI at union level.

Para Workers (PWs) of selected Upazilas of three hill tract districts under ICDP-CHTDB also received 3 days basic training on ECD by NIPORT trainers. These workers are assigned to cover 25-30 households in a cluster.

Field trainers of BRAC have given 3 day training to their front line workers (Shastha Sebika, Shastha Kormi and BEP teachers) at Area/Branch office. The Shastha Sebika of BRAC is essentially volunteers with fixed remunerations of Tk. 300 per month, while major earning in their case is obtained through services to the people receiving in the form of incentives. Each Shastha Sebika is supposed to cover 200 households. For 10 Shastha Sebikas there is one Shasthya Kormi.

Grameen Shikhhkha (GS) has provided 3 days basic training to their FLWs (Group leader) following the same curriculum through the field trainers of GS. A Group Leader of GS is assigned with 20 households in their project area.

Table 5 shows the Distribution of the FLWs of different agencies by background characteristics:

Table 5: Distribution of the FLWs by background characteristics

Variable: Background characteristics	NIPORT				BRAC				GS
	FWA n=82	HA n=97	PW n=18	Total n=197	Shastha Sebika n=217	Shastha Kormi n=91	BEP Teacher n=129	Total n=437	Group Leader n=36
Mean Age (in yrs.)	40	38	27	38	39	25	29	33	30
Mean Education (Grades completed)	11	12	9	11	7	10	11	8	9
Mean Parity	2	2	2	2	3	2	2	3	2
Mean Monthly income (respondent) in Tk.	6059	6208	1053	5671	838	1269	1042	989	1561
Mean Monthly income (family) in Tk.	12787	10166	6542	10929	3931	5006	5063	4494	8217
Mean Duration of service (in years)	20	16	6	17	8	3	9	7	4
Currently Married (in %)	93	92	89	92	87	77	79	82	86

The mean age of the field workers of Govt. (FWA and HA) and Para Workers of CHTDB is higher (38 years) than those serving in BRAC (33 years) and in GS (30 years). Similarly, mean education level of the FLWs belonging to Govt. is also higher (11 classes on an average) than those in BRAC and GS (8 and 9 grades completed respectively). The completed family size (mean parity) of FLWs of the Govt. and GS is 2; those remaining in BRAC have on average 3 children. A wide gap persists between the mean monthly family incomes of the FLWs of the three different agencies. FLWs belonging to BRAC has the lowest family income in a month (4494 Taka), while FLWs belonging to GS has almost double (8217 Taka) family earnings than BRAC and FLWs belonging to Govt. has the highest family earnings between the three (10929 Taka), which is almost two and half times more than that of BRAC. Mean duration of services of the FLWs is also higher in case of Govt. (17 yrs.) which is followed by the FLWs belonging to BRAC (7 yrs.) and GS (4 yrs.). Salaries and length of services are positively correlated. Ninety percent of the field workers of Govt. are currently married, while the proportion currently married are 82 and 86% respectively in BRAC and GS.

Background characteristics of Primary Caregivers: mothers and fathers of child within age 0-60 months

Child rearing is ideally a joint responsibility performed by both the parents. To ascertain objectively how much responsibilities have been performed by whom (Mother/ Father), questions have been asked:

- To the Mothers directly to inquire about their roles regarding child rearing and again to the mothers to inquire about the fathers performing such roles; similarly
- To the fathers directly to inquire about their roles regarding child rearing and again to the fathers to inquire about the mothers performing such roles.

Interviews of primary caregivers (mothers and fathers of child within age 0-60 months) were carried out at 90 clusters of 17 Districts of ECD intervention. Clusters were selected from the working areas of all three implementing agencies: NIPOINT, BRAC and GS. Table 6 and 7 show the Distribution of Mothers and Fathers with child within age 0-60 months by background characteristics by the three implementing agencies:

Table 6: Distribution of Mothers with child within age 0-60 months by background characteristics

Variable: Background characteristics of Mothers	NIPORT n=318	BRAC n=1064	GS n=68	Total n=1450
Mean Age (in yrs.)	27	25	25	25
Mean Education (Grades completed)	7	7	8	7
Mean Education of Husband (Grades completed)	9	9	10	9
Mean Parity	2	2	2	2
% Nucleus family	71	72	70	72
% Joint family	29	28	30	28
Average household size	5	5	5	5
Occupation (in %)				
Housewife	91	92	85	91
Service	4	3	6	3
Others (Agriculture Business, Day laborer etc.)	5	5	9	6
Husband's Occupation (in %)				
Agriculture	19	19	6	18
Business	27	25	32	26
Service	18	9	36	13
Day laborer	28	39	20	35
Others (Teacher, Immigrant, Village doctor etc.)	8	8	6	8
Mean Monthly income (Respondent) in Tk.	2630	1793	2040	1988
Mean Monthly income (family) In Tk.	4382	3907	4333	4031
Residence (in %)				
Own house	83	91	90	89
Rented house	13	4	9	6
Others (Residing in others house, etc.)	4	5	1	5
Source of drinking water (in %)				
Tube well	96	99	100	98
Others (Pond, River/canal, Well)	4	1	0	2
Category of latrine (in %)				
Sanitary latrine	28	31	36	30
Pit latrine	57	41	52	46
Others (Open latrine, no latrine)	15	28	12	24
Socio-economic condition (in %)				
Poor	50	55	30	52
Non-poor	50	45	70	48

There is hardly any difference between the background characteristics of the mothers across the three agencies. Mean age of the mothers is 25 years. Mean education level of the mothers and their husbands are 7th and 9th grade completed respectively and their mean parity is 2 children. Around three quarters (70-72%) of the respondents reside in nucleus families, while their mean number family member is 5. An overwhelming majority (86-92%) of the mothers are housewives. Overwhelming majority of the respondents (83-91%) reside in their own residences. Almost all the respondents (96-100%) of different areas have access to safe drinking water (tube well). About one third of the respondents use sanitary latrines (28-36%) while the majority of them (46%) use pit latrines and about a quarter of them have open latrines or no latrines. About half of the respondents are poor (including hard core poor) and half of them belong to non-poor category (middle and rich).

Table 7: Distribution of Fathers with child within age 0-60 months by background characteristics

Variable: Background characteristics of Fathers	NIPORT n=162	BRAC n=520	GS n=28	Total n=710
Mean Age (in yrs.)	33	32	34	32
Mean Education (Grades completed)	9	9	10	9
Mean Education of spouse (Grades completed)	7	7	8	7
Mean Number of child	2	2	2	2
% Nucleus family	76	71	69	72
% Joint family	24	29	31	28
Average household size	5	5	5	5
Occupation (in %)				
Day laborer	29	34	21	32
Business	28	26	55	28
Agriculture	22	25	10	23
Service	18	11	7	13
Others	3	4	7	4
Occupation of spouse (in %)				
Housewife	83	80	35	78
Business	3	6	31	7
Service	7	3	14	5
Day laborer	2	6	14	5
Agriculture	3	3	3	3
Immigrant	2	2	3	2
Mean Monthly income (Respondent) in Tk.	3792	3230	3407	3366
Mean Monthly income (family) in Tk.	4088	4229	4333	4198
Residence (in %)				
Own house	86	93	90	92
Rented house	13	3	7	5
Others (Others house, etc)	1	4	3	3
Source of drinking water (in %)				
Tube well	93	100	100	99
Others (Pond, River/canal, Well)	7	0	0	1
Category of latrine (in %)				
Sanitary latrine	20	25	10	23
Pit latrine	58	35	79	42
Others (Open latrine, no latrine)	22	40	11	35
Socio-economic condition (in %)				
Poor	47	53	38	51
Non-poor	53	47	62	49

Similar to mothers' sample, there is hardly any difference between the background characteristics of the fathers across the three agencies. Mean age of the fathers is 32 years. Mean education level of the fathers and their spouses are 9th and 7th grades completed respectively and their mean number of child is 2. Around three quarter (69-76%) of the respondents reside in nucleus families, while their mean family member is 5. 86-93% of the respondents reside in their own residences. Almost all (99%) the respondents of different areas have access to safe drinking water (tube well). About a quarter of the respondents use sanitary latrines (23%), while the majority of them (42%) use pit latrines and about a one third of them have open latrines or no latrines. About half of the respondents are poor (including hard core poor) and half of them belong to non-poor category (middle and rich).

Operational criteria used by investigators:

Poor (hard core poor and poor):

Hardcore poor: Possess no cultivable land, only homestead, work six months a year, there is no earning male in the family, head of the household or the main person of the family is unable to work.

Poor: Possess small quantity of cultivable land and homestead, work over six months a year, thatched house.

Non-poor (Middle class and rich):

Middle class: Possess cultivable land and homestead, works most of the time of the year, house made of tin, service holder, possess cattle, having other income sources.

Rich: Possess more than 10 bighas of cultivable land and homestead, works all over the year, service holder, have other income sources and agricultural equipments.

Chapter V

Findings and Discussions

FLWs Knowledge, Skills and Practices

Following the TOR objectives, knowledge & skill of FLWs on ECD and their ability to disseminate messages to the caregivers were assessed through investigations with some specified structured and semi-structured questionnaires. FLWs of three agencies were trained for 3 days using a training manual. Knowledge & skill of FLWs was assessed in terms of knowledge & skill achieved by the FLWs from the specified training. Their ability to disseminate messages to the caregivers was assessed from their performances during post training period in their assigned working areas.

Knowledge on cut-off age of child and early childhood

The FLWs were asked on the age margin of Child (0 to 18 years) and Early Childhood (0 to 5 years); the responses are shown in table 8:

Table 8: Distribution of FLWs by knowledge on age margin of Child and Early Childhood: in percent

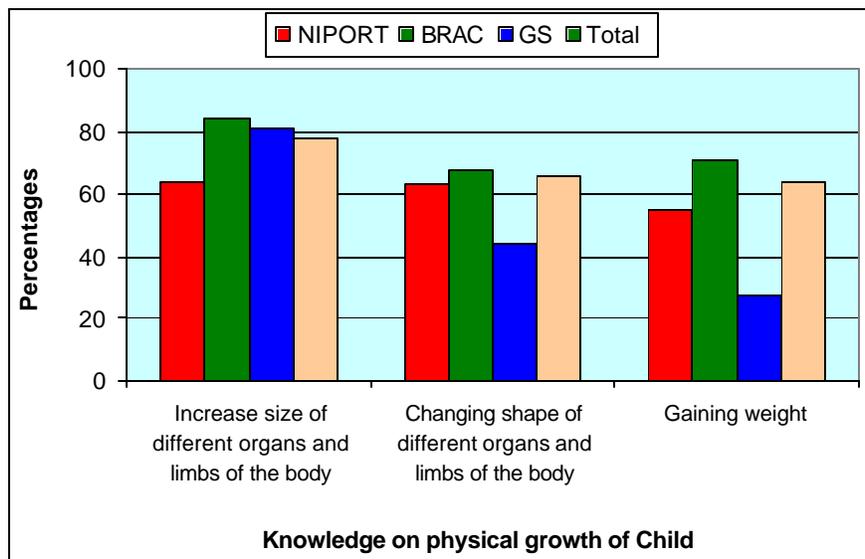
Knowledge on age margin of Child and Early Childhood	NIPORT n=197	BRAC n=437	GS n=36	Total n=670
Age margin of Child				
Have appropriate knowledge	78	91	89	87
Don't have appropriate knowledge	22	9	11	13
Age margin of Early Childhood				
Have appropriate knowledge	72	78	94	77
Don't have appropriate knowledge	28	22	6	23

Appropriate awareness about the cut off age of a child and that of early childhood, a lower proportion of the field workers of Govt. (78 and 72%) demonstrated appropriate/correct knowledge compared to the field workers of GS (89 and 94%) and those in BRAC (91 and 78%).

Knowledge on physical growth of a child

The FLWs were asked to express their understanding on physical growth of a child. The categories of responses as indicators of physical growth specified by the respondents are: increases and or changes in the size of child's body, and gains in their weight (shown in figure 1). A larger proportion of the field workers of BRAC mentioned all the three criteria specified as indicators of physical growth compared to those belonging to Govt. and GS. Majority of the FLWs of GS failed to mention changing shapes of child's body and gains in weight. However, on overall knowledge on the three indicators, field workers of BRAC have gained most knowledge followed by those in Govt. and GS in that order.

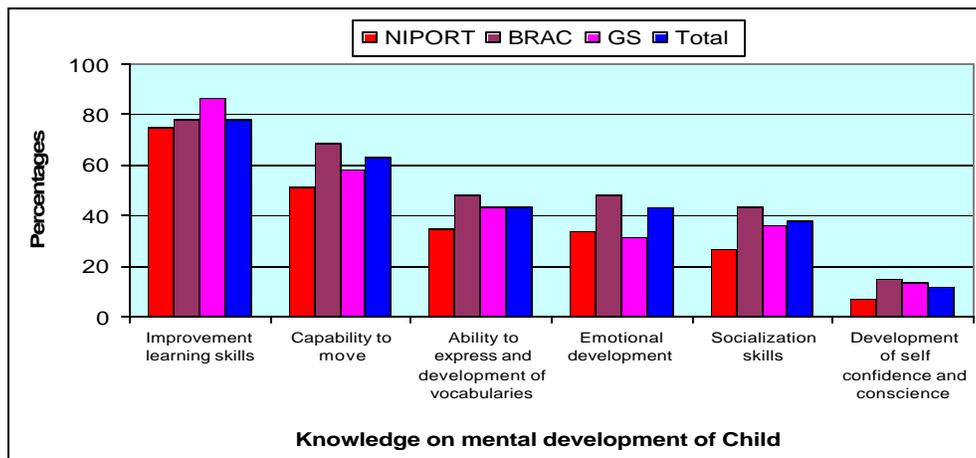
Figure 1: Depicts the knowledge of FLWs on physical growth of Child



Knowledge on mental development of a child

The FLWs were asked to express their understanding of the indicators of mental development of a child. The categories of responses as indicators of mental development specified by the respondents are: Capability to move, improvement in learning skills, ability to express and enhancement of vocabularies, socialization skills, emotional development, and development of self confidence and conscience (shown in figure 2). More than three fourths of the respondents (78%) could mention 'Improvement of learning skills' as the indicator of mental development, followed by about two third of the respondents (63%) mentioning about 'Capability to move'. Development of self confidence/conscience has been mentioned by the least proportion for the respondents (12%), while socialization skills have been mentioned by about one third (38%) of the respondents.

Figure 2: Depicts the knowledge of FLWs on the indicators of mental development of Child



Knowledge on learning Processes

Learning processes are influenced by the extent of mental development, which in turn is governed by brain. Enquiries were made to assess respondents' understanding of the learning processes including the organ vital for mental development.

Table 9: Distribution of respondents by knowledge on identification of the organ influencing mental development: in percent

Responses	NIPORT n=197	BRAC n=437	GS n=36	Total n=670
Correct answer (brain)	95	93	100	94
Incorrect answer (liver, heart, hands, feet etc.)	5	7	0	6

With the exception of very few FLWs, the knowledge on the organ (brain) influencing mental development is almost universal.

Besides, brain the additional knowledge about the sensory organs, which influences perceptions and feelings of a child was also assessed.

Table 10: Distribution of respondents by knowledge on identification of 'five sensory organs': in percent

Variable: Knowledge on 'five sensory organs'	NIPORT n=197	BRAC n=437	GS n=36	Total n=670
Eye	95	97	97	97
Ear	93	94	94	93
Nose	94	95	95	94
Tongue	83	91	91	88
Skin	72	76	76	75

Multiple responses

Again the knowledge on five sensory organs is almost universal except the knowledge on skin and tongue.

The training program emphasized on raising the level of comprehension of the FLWs' on the learning processes of children. During training, the FLWs were oriented about as many as 15 different ways of learning.

Table 11: Distribution of FLWs by knowledge on different ways of learning of Child: in percent

Variable: Knowledge on different ways of learning of Child	NIPORT n=197	BRAC n=437	GS n=36	Total n=670
Through observation	82	91	92	88
Through participation to games	79	87	89	85
Through imitation	70	63	75	66
By asking questions	44	60	56	55
By repeated attempt	28	49	14	41
By seeing pictures	24	47	26	39
Through enjoyment	36	38	22	37
Doing works	25	36	22	32
Taking taste	12	29	25	24
Listening stories	25	27	22	26
Through imagination	13	29	14	23
Through movement	11	24	8	19
By comparison	9	22	8	18
Becoming active (agility)	14	18	8	16
By investigation (curiosity)	11	11	6	11

Multiple responses

Observation and participation to games have been mentioned by an overwhelming majority of the respondents (88 and 85%) as processes of learning by the children, while four processes, such as movement, making comparisons, agility and becoming curious, have been mentioned by only one tenth to one fifth of the respondents (11-19%). Imitation and asking questions (enquiring) as processes of learning have been mentioned by more than half to two third of the respondents. As many as seven components on the processes of learning have been referred by about one third to one fourth of the respondents.

Knowledge on interactive care

Interaction is an essential skill which helps build up social and environmental relations vital for survival and subsequent living. The FLWs were asked to mention different ways of providing interactive care to the child. According to the training manual, the FLWs are oriented on 5 different ways of providing interactive care to the child.

Table 12: Distribution of FLWs by knowledge on different ways of providing interactive care to the child: in percent

Variable: Knowledge on different ways of providing interactive care	NIPORT n=197	BRAC n=437	GS n=36	Total 670
Interactive care should be provided everyday in a repeated manner	87	87	92	87
Interactive care should be provided using five sense organs, hands and feet	71	71	58	70
Interactive care should be provided in safe and enabling environment	42	60	47	54
Interactive care should be provided considering age specific acceptance capability	38	46	28	43
Interactive care should be provided equally to both boy and girl child	29	50	28	43

Multiple responses

Most of the FLWs reiterated that interactive care should be ensured every day in a repeated manner (87%) and using the sensory organs (70%) where touching, embracing and other forms of care can be transmitted to the child. On the contrary, their awareness about three other ways of ensuring interactive care: providing care in an enabling environment, providing care considering age specific priorities and providing care without gender bias is limited to 54%, 43% and 43% respectively.

Knowledge on antenatal care

Care during pregnancy is vital for the growth and development of child in mothers' womb and above all appropriate care ensures both mental and physical growth of the child. FLWs' awareness about cares of different forms during pregnancy is critical for further diffusion to mothers.

Table 13: Distribution of FLWs by knowledge on necessary Antenatal Care to the pregnant mothers: in percent

Knowledge on Antenatal Care	NIPORT n=197	BRAC n=437	GS n=36	Total 670
To provide nutritious and additional food, iodine fortified food, iron and folic acid, TT immunization to the pregnant mothers	94	92	83	92
To keep away the mother from heavy work	72	76	72	74
To keep the mother cheerful and free from anxiety	47	70	53	63
Regular health check-up by health workers	56	54	47	54
To take preparation for safe delivery and emergency obstetric care	35	45	39	42
To assure mothers regarding birth of a child without gender bias	25	39	28	34
Keep pregnant mothers free of any violence	24	36	11	31

Multiple responses

Knowledge about the food habits (taking extra and nutritious including iodine fortified food) and iron and folic acid and also accepting TT vaccines is almost universal among the FLWs. About three fourths of them also are aware of the need for avoiding heavy work during pregnancy. Majority of the FLWs are aware of remaining free from anxieties during pregnancy and the need for undergoing regular health check-ups. But unfortunately FLWs' awareness about the necessity of keeping the mother free from any violence during pregnancy, the necessity to ensure EOC and assuring the mothers regarding birth of a child without gender bias is limited to 42%, 34% and 31% respectively.

Knowledge on safe and enabling environment for child's development

Table below specifies several components of child care pertaining to the child's physical growth and mental development in an enabling environment.

Table 14: Distribution of FLWs by knowledge on safe and enabling environment for physical and mental development of a child: in percent

Safe and enabling environment for physical and mental development	NIPORT n=197	BRAC n=437	GS n=36	Total n=670
Ensure Clean and healthy environment	60	70	42	66
Breast feeding: exclusive and supplementary feeding	28	42	17	37
Colostrums feeding just after birth	41	40	22	39
Child Immunization from six diseases	36	39	28	37
Providing treatment against illness of the child in time	35	41	31	39
Allowing child to express opinions freely	14	21	8	18
Ensure attention to the child	24	34	20	30
Allow child to mix or play with other children	13	19	22	18
Care without discrimination to both boy and girl children	24	37	20	32
Facilitate environment for creative works	19	27	14	24
Provisions for games and mental recreation of the child	47	48	33	47
Creation of age appropriate games and playing	40	48	25	44
Ensure Safe drinking water	36	44	42	41

Multiple responses

Most of the FLWs of BRAC (70%) and Govt. (60%) expressed that a child needs to grow in a clean and healthy environment. Excepting this component, the FLWs on all other important social, behavioral and environmental contexts are very poorly informed. Even their knowledge on exclusive breast feeding and supplementary feeding, child immunization, colostrums feeding, providing timely treatment during illness, providing care without gender discrimination, and ensuring attention to the child is limited (30-39%). However, less than half of the FLWs (41-47%) are aware of the need for safe drinking water and the arranging games and recreation for the child. The behavioral aspects which would affect child's mind at the level of promoting their creativity, openness (confidence to express opinions) and socialization with other children are also not adequately known to the FLWs (18-24%).

Knowledge on harmful environment and dangerous attitude

Conventional practices exert negative influences on child’s development and these are often risk provoking and dangerous for their growth. The table below cites several such practices segmented by factors impairing development of the child.

Table 15: Distribution of FLWs by knowledge on harmful environment and practice for development of child: in percent

Harmful environment and practice for child’s development	NIPORT n=197	BRAC n=437	GS n=36	Total n=670
Restricting the child from mixing or playing with other children	45	51	20	48
Early marriage and early pregnancy	41	47	61	46
Delivery in unhealthy environment	40	48	25	45
Providing unsafe pregnancy care: delivery by Traditional hands, treatment from quacks and indigenous treatments for pregnancy complications	31	42	25	38
Making the child totally dependant on servants	24	30	3	27
Smoking and other bad practices in front of child	29	26	20	26
Blame the mother for delivering girl child	22	36	25	31
Childs’ exposure to family feuds, conflicts and violence	34	48	28	43
Subjecting the child to pressures to perform something beyond capacity or age	21	26	8	24
Tease, scold, beat the child	42	46	17	43
Criticizing child in front of others	24	33	3	29
Not to appreciate good works of child	29	36	14	33
Frightening the child without any reason	31	49	20	42
Exposing the child to situations of telling lies, misbehaving and giving false assurances	28	38	14	34
Not protecting the child from elements potential to cause accidents and dangers, such as, medicine, knife, cooker, kerosene, petrol and unsafe environment, such as, ditch, canal, pond etc.	37	45	70	44

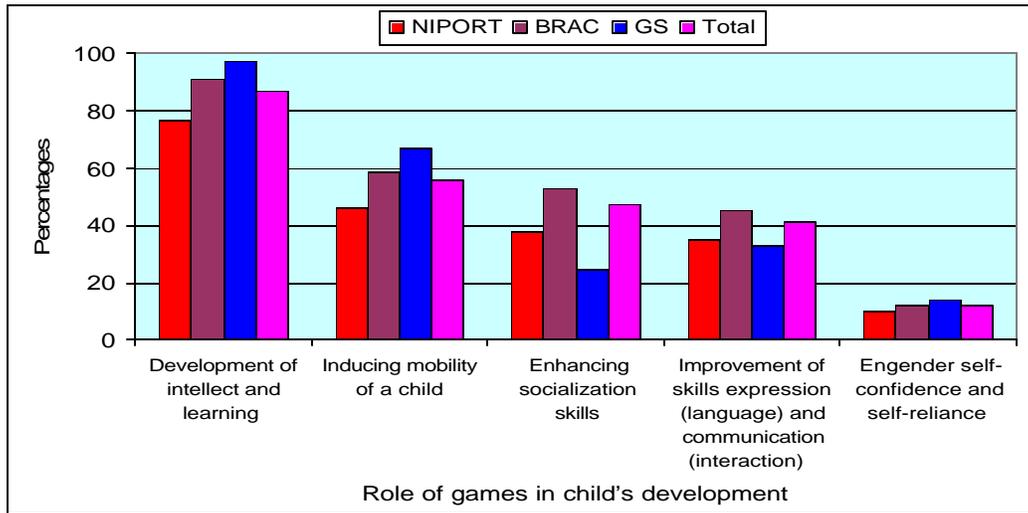
Multiple responses

Irrespective of the components of behavior and practices impairing proper development of a child, the FLWs demonstrated their level of awareness consistently below 50%, while on some it prevails at a very poor level.

Use of Games and Toys

Child’s exposure to games and toys exert positive influences in the future development of child both physically and mentally. The FLWs were expected to disseminate messages on the importance of child’s exposure to games and toys as means to encourage growth and development. The training curricula specifically emphasized five different messages as impact of games and toys on the child’s development. Figure 3 shows the levels of knowledge of FLWs on recollection of the message pertaining to use and influences of games and toys on child growth:

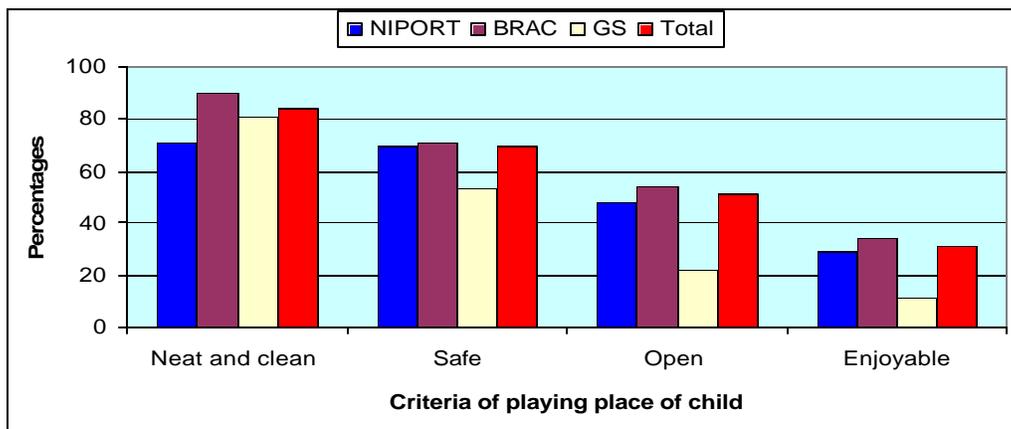
Figure 3: The bar depicts the levels of knowledge of FLWs on recollection of the messages pertaining to use and influences of games and toys on child growth



Most of the FLWs (87%) could easily specify games and toys as means of developing the intellect and the capacity to learn (acquire knowledge). But the FLWs' level of recollection of other component of influences of games and toys on child's development is gradually declining by each component: Inducing mobility (56%); Enhancing socialization skills (47%); Improvement of language and communication skills (41%); and engendering self confidence (12%).

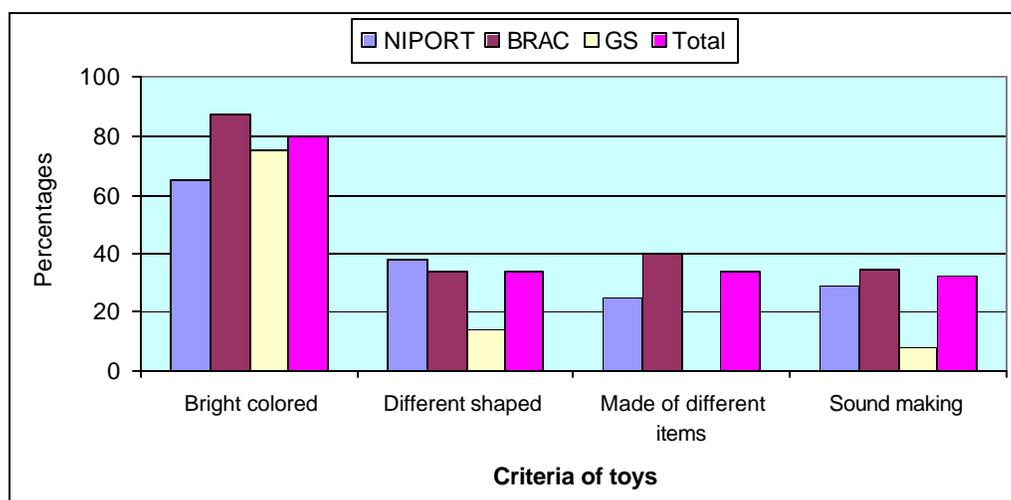
The environment where the children are supposed to play with toys and games is critical to induce a child to participate in such undertaking. Figure 4 shows an overwhelming majority of the FLWs mentioned that the space for games and toys need to be neat and clean (84%) and safe (70%). About half of them preferred an open space (51%) and about a third recommended that the space in addition has to be enjoyable (31%). However, there are variances among the performances of the FLWs belonging to different implementing agencies. FLWs belonging to GS were observed less aware on the criteria of space for games in comparison with the FLWs belonging to BRAC and Govt.

Figure 4: Shows the FLWs' perception on the quality (criteria) of space for games and toys for child



Apart from the space the shapes and forms of the toys is also critical in inducing child's participation. Figure 5 depicts the knowledge of FLWs on criteria of toys. Most of the FLWs perceived that the toys have to be of bright colour (80%), about a third (34%) suggested that the toys need to be of varied shapes and forms, and an equal proportion (34%) also suggested that the toys need to be made of different materials and different types. Again about a third of them preferred the toys to be making sounds. Among the implementing agencies, again the FLWs belonging to GS were observed less aware on the criteria of toys in comparison with the FLWs belonging to BRAC and Govt.

Figure 5: Depicts the knowledge of FLWs on criteria of toys



Perception on roles of caregivers according to priority

It is essential that one understands as to whose roles as caregivers in the family is most vital and important. The FLWs were asked to prioritize such roles by caregivers in the family.

Table 16: Distribution of the parents and family members as Caregivers of child as perceived and prioritized by the FLWs

Caregivers	% of Caregivers as prioritized by the FLWs				
	Priority 1	Priority 2	Priority 3	Priority 4	Priority 5
Mother	99	1	0	0	0
Father	1	98	0	0	0
Grandmother	0	1	63	15	7
Sister	0	0	11	20	14
Brother	0	0	12	8	10
Grandfather	0	0	14	47	10
Aunt	0	0	0	3	54
Servants	0	0	0	6	2
Other	0	0	0	1	2

Almost all the FLWs (99%) prioritized the roles of mothers as the top most priority caregivers (No. 1 Priority) of child in a family, while again 98% of the FLWs perceived fathers as the second most important caregivers of a child in the family and the grand mothers (63%) as the third most important caregivers in the family. Interestingly, only a few FLWs (20%) have categorized the sister as fourth priority caregivers in the family and the aunts (54%) have been ranked as fifth priority caregivers in the family. Hence according to the FLWs, no body other than the mothers plays the most important caregivers roles in the family.

Dissemination of ECD messages

The FLWs used different methods while disseminating ECD messages in the communities.

Table 17: Distribution of FLWs by knowledge and skills used during post-training period: in percent

Skills used for dissemination in the communities	NIPORT n=197	BRAC n=437	GS n=36	Total n=670
Interpersonal contacts for educating mothers on: a. maternal and child health; b. physical and mental development of child; and c. on child immunization	49	57	22	52
Group discussions including Uthan Baithak	42	46	72	47
Conduct large meetings every month	11	15	8	13
Provide care to the pregnant mothers	12	14	17	14

Multiple responses

Most frequently applied methods of dissemination of ECD messages by the FLWs in the communities is interpersonal contacts (52%), followed by Group discussions (47%) and monthly large meetings (13%). In addition, nearly a sixth of the FLWs have mentioned that they provide also some forms care (ANC) to the pregnant mothers. Both the FLWs from Govt. and BRAC gave almost equal priorities to interpersonal and group contacts, but those from GS overwhelmingly prioritized group contacts (72%) and very poorly mentioned interpersonal contacts (22%) as means of disseminating ECD messages.

Most of the FLWs contact the mothers (63%) while conducting dissemination sessions in the communities (households, paras), on the contrary, they allocate their time rarely for other caregivers (8-9%).

Table 18: Distribution of FLWs by proportion of time allocated for caregivers’ learning and motivation: in percent

Variable: proportion of time allotted to the caregiver by different categories	NIPORT n=197	BRAC n=437	GS n=36	Total n=670
Time allotted to mothers	63	61	61	62
Time allotted to fathers	9	9	10	9
Time allotted to grand parents	8	11	7	9
Time allotted to elderly siblings	7	7	9	8
Time allotted to other relatives	7	7	9	8
Others (house maids, community people)	6	5	4	5
Total	100	100	100	100

Almost all the FLWs perceived that they could impart behavioral changes among the targeted caregivers in the communities.

Table 19: Distribution of FLWs by their perception of achieved changes in caregivers’ targeted behaviors on ECD: in percent

Variable: perception of changes occurred	NIPORT N=197	BRAC n=437	GS n=36	Total n=670
Yes: changes occurred among the behavior of caregiver	98	98	100	98
No: no changes	2	2	0	2

The ultimate objective of the project is to change the beliefs and practices of child care through dissemination of ECD messages to the caregivers by the FLWs. The FLWs as evident from the preceding tables disseminated such messages through home visits and also through group and large meetings in the communities. Hence, the current evaluation study emphasized on assessment of the messages disseminated both quantitatively and qualitatively. Table 25 evidences the extent of coverage of caregivers with ECD messages by the FLWs in last one month.

Table 20: Distribution of FLWs by status of dissemination of ECD messages to the caregivers

Average Contacts with Caregivers by an FLW in last one month	NIPORT				BRAC n=437	GS n=36	Total n=670
	HA n=97	FWA n=82	PW n=18	Total n=197			
Mean number of interpersonal contacts	47	47	12	44	36	25	38
Mean number of contacts through group meetings	58	59	78	60	65	85	65
Mean number of group meetings conducted	4	4	6	4	5	6	5

On average in a month, through interpersonal contacts an FLW disseminates ECD messages to 38 caregivers and through Group Contacts to an additional 65 caregivers. One may presume that

an FLW contacts at least 100 care givers a month, of whom majority are mothers. An FLW conducts on average 5 group meetings in a month. Basing on the estimates of the FLWs themselves, the performances of the HAs and FWAs on the coverage of beneficiaries through interpersonal and group contacts is comparable. Here it may be mentioned that FWAs by their assignments in their parent department (FP) are 100% female field workers, while the majority (about 75%) of the HAs are males. Hence, it may be prudent to engage both the cadre of workers in order to ensure a balance between contacts among male (Fathers) and female (Mothers) beneficiaries.

Use of IEC materials

It was assumed that the level of use of IEC materials is positively related with the quality of contacts. The following tables (21 and 22) delineate the extent of use of IEC materials by types by the FLWs.

Table 21: Distribution of FLWs by status of using IEC materials during motivational activities: in percent

Variable	NIPORT n=197	BRAC n=437	GS n=36	Total n=670
Yes	61	66	53	64
No	39	34	47	36

Table 22: Distribution of FLWs by types of IEC materials used: in percent

Types of IEC materials used	NIPORT n=120	BRAC n=288	GS n=19	Total n=427
Poster	20	38	47	33
Picture	26	40	58	37
Flip chart	48	25	26	32
Leaflet	5	6	0	6
Others (doll, flower, toys etc.)	3	3	0	3

Multiple responses

About two third of the FLWs (64%) affirmed that they used IEC materials during their contacts with the caregivers and they almost uniformly used posters (33%), pictures of healthy child (37%), and Flip Chart (32%). However, it is interesting to note that the use of dolls and toys is very limited.

Conclusion:

Analyses of findings (in the preceding tables/sections) demonstrate that the field workers usually recollected relatively easier to comprehend lessons, while the difficult concepts could not be specified by a large number of FLWs. This signifies that there could be scope for further improvement of the training programs by ensuring intensive follow-up of the trainees during training in order to assess their capacity to comprehend and then reproduce the concepts in the most understandable manner (through intensive practice sessions). The authority in the UNICEF, GOB and allied agencies may reconsider to find out through a comparatively smaller group training practices the reasons for such failures in comprehending or in recollecting the difficult concepts of ECD by the FLWs.

Chapter VI

Findings and Discussions

Caregivers' Knowledge, Skills and Practices

Capacity to disseminate ECD messages by the FLWs is assessed by the extent of: 1. contacts between the FLWs and the care givers; 2. messages disseminated to the care givers by the FLWs; and 3. level of understanding and use of the messages by the Caregivers.

1. Contacts Between FLWs and the Caregivers and the exposure to ECD messages

Contacts by the FLWs

The table below shows the extent of contacts between the FLWs and the caregivers; and the status of dissemination of ECD messages to the caregivers (estimated by the caregivers: mothers and fathers).

Table 1: Distribution of caregivers by their level of contacts with FLWs and their exposure to ECD messages: in percent

Variable: Proportion of caregivers contacted by the FLWs and exposed to messages of ECD	Mother							Father						
	NIPORT				BRAC n=1064	GS n=68	Total n=1450	NIPORT				BRAC n=520	GS n=28	Total n=710
	HA n=80	FWA n=190	PW n=48	Total n=318				HA n=40	FWA n=98	PW n=24	Total n=162			
% of caregivers contacted by the FLWs in last three months	58	77	98	75	75	69	75	45	44	79	49	50	79	51
% of caregivers exposed to messages of ECD	56	76	98	74	72	68	73	35	41	79	45	45	75	46

About three fourth of the mothers claimed that they were contacted by an FLW in last three months; while on the contrary, only half of the fathers said so. However, it was interesting to note that the care givers in the catchments served by GS, claimed that more fathers than the mothers were exposed to such contacts. One of the reasons could be that the in the catchments of GS, the FLWs mentioned higher proportion of group (Uthan Baithak) than interpersonal contacts, which might imply that groups were in mixed gender.

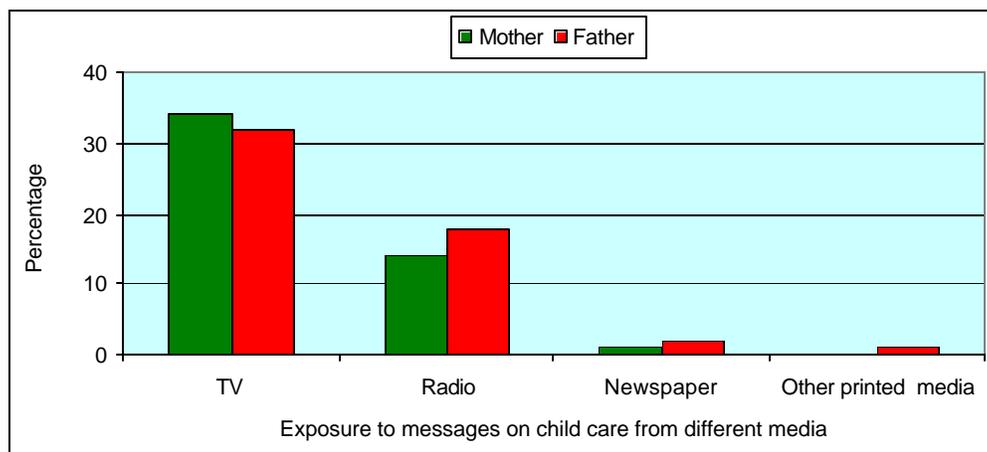
Again about three fourths of the mothers (73%) were exposed to the messages on ECD due to contacts by the field workers, than the fathers (46%), with whom the level of contact by FLWs is about half of that made with the mothers.

Interestingly, along the catchments served by the Govt. FLWs, the performances of FWAs are observed comparatively better than the HAs, as three quarters (77%) of the mothers were visited by an FWA (who is a female) in last three months. Almost a comparable proportion (74%) mothers also reported that they received ECD messages from the FWAs. Contrarily, about half of the mothers were visited by HAs in last three months (58%) and almost an equal proportion (56%) of the mothers reported that they received ECD messages from the HAs (who are mostly males). However, not much of difference was observed as regards contacts with fathers by the HAs and the FWAs and also on dissemination of ECD messages.

Exposure to media

Media (primarily mass media) play important roles in disseminating messages to the target audiences to a larger extent. The caregivers were asked to mention about their exposure to messages on child care by different media. Figure 1 depicts exposure of the caregivers to messages on child care from different media. Overall exposure of the caregivers to messages on child care from different media is observed very limited. Only, about one-third of the caregivers mentioned that they were exposed to messages on child care from television and less than one-fifth of them were exposed to such messages from radio.

Figure 1: Depicts exposure of the caregivers to messages on child care from different media



Exposure to ECD messages

Overall exposure of the caregivers to ECD messages from the FLWs are delineated in the table below:

Table 2: Distribution of Caregivers by their levels of exposure to ECD messages: in percent

Messages	Mother				Father			
	NIPORT n=236	BRAC N=771	GS n=46	Total n=1053	NIPORT n=73	BRAC n=235	GS n=21	Total n=329
Child's physical growth	57	43	87	48	29	43	91	43
Child's mental development and interactive care	11	17	33	16	10	26	0	20
Inter relation between physic, mind and environment	20	22	17	21	15	23	0	20
Safe and enabling; and harmful and risky environment for child	28	30	13	29	30	23	5	23
Child's learning process	23	42	54	38	22	29	0	25
Children's need for participating in games and playing	4	10	7	9	10	4	0	5

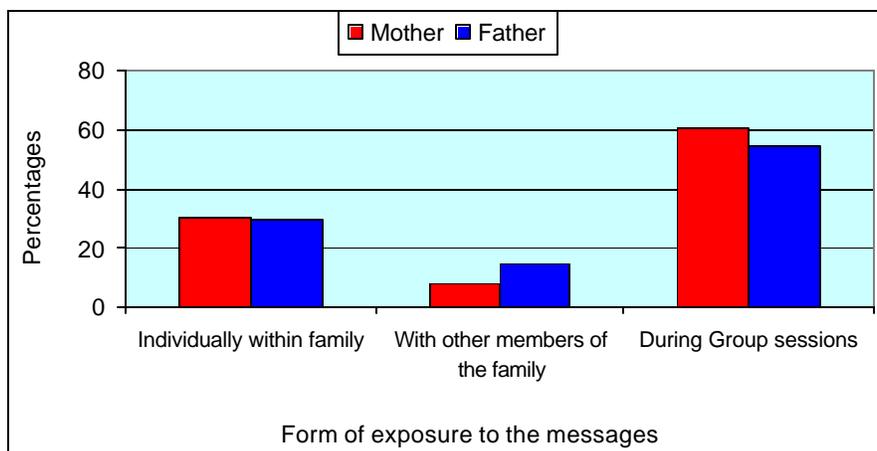
Multiple responses

Comparatively a larger proportion of caregivers recollected the ECD messages about child's physical growth (mothers: 48% and fathers: 43%). On the contrary, messages with specific information such as enabling, safe, harmful environment for the children (23-29%), learning process (25-38%), Children's need for participating in games and playing (5-9%), the level of awareness of the caregivers is limited.

Form of exposure to ECD messages

About one third of the caregivers (30-31%), irrespective of fathers and mothers, said that they were contacted by the field workers individually in their households, while very few of the caregivers (8-15%) mentioned that the field workers contacted the rest of the members of the family also. However, a larger proportion of the caregivers (55-61%) mentioned that they were exposed to ECD messages in group sessions (figure 2).

Figure 2: Depicts of caregivers by their form of exposure to the messages of ECD



Knowledge enhanced after receiving ECD messages

Almost all the caregivers exposed to the contacts by FLWs (96-98%) claimed that such contacts enhanced their levels of knowledge and awareness on ECD.

Table 3: Distribution of Caregivers by specific subjects of ECD on which their knowledge increased: in percent

ECD messages	Mother				Father			
	NIPORT n=236	BRAC N=771	GS n=46	TOTAL N=1053	NIPORT n=73	BRAC n=235	GS n=21	TOTAL n=329
Good rearing: Physical and mental care of child; ensure good behavior and fulfilling desires of child	29	39	31	37	33	55	57	51
Prohibiting Violence against child	39	26	17	28	46	33	52	37
Make provisions for games and toys for the child and allow the child to play	14	36	33	34	14	29	95	31
Supplementary and nutritious feeding after six months	7	26	33	22	4	20	10	16
Immunization of child	33	11	15	16	29	9	24	14
Ensuring cleanliness of the child	17	7	4	9	23	4	0	8
Exclusive breast feeding	4	6	4	5	6	5	0	5
Colostrums feeding	7	9	9	9	6	5	0	5
Safe and enabling environment for the child	1	3	0	2	1	1	0	1
Timely feeding of the child	1	2	0	2	0	3	5	3
Sending the child to school at right age	1	1	0	1	0	1	0	1
Being caring towards wife	1	1	0	1	0	1	0	1
Avoid neglecting girl child	0	1	2	1	0	1	0	1

Multiple responses

More than one-third to half (37-51%) of the caregivers reported that their level of knowledge increased on good rearing of child (physical and mental care of child; ensure good behavior and fulfilling their desires) and about one-third of them reported of increasing knowledge on prohibition of violence against child (28-37%) and making provisions for games and toys for the child and allowing the child to play (31-34%). However, the responses of the caregivers in respect of increasing knowledge on some other vital issues were very limited.

Changes occurred in care giving practices

The caregivers were inquired about if there is any change occurred in the care giving practices after receiving messages from the FLWs or whether they are following the advice of the FLWs regarding child care.

Table 4: Distribution of caregivers by status of changes occurred in the care giving practices after receiving messages from the FLWs: in percent

Status of changes occurred	Mother				Father			
	NIPORT N=236	BRAC N=771	GS N=46	TOTAL N=1053	NIPORT N=73	BRAC N=235	GS N=21	TOTAL N=329
Yes: changes occurred	98	96	98	96	95	94	100	95
No changes	3	4	2	4	6	6	0	5

With very negligible exceptions, almost all (95-96%) the caregivers unequivocally accepted that changes occurred in the care giving practices after receiving messages from the FLWs.

The caregivers were asked to mention the changes occurred in their care giving practices after receiving messages from the FLWs.

Table 5: Distribution of caregivers by the changes occurred in the care giving practices after receiving messages from the FLWs: in percent

Care giving practices	Mother				Father			
	NIPORT N=230	BRAC N=734	GS N=45	TOTAL N=1009	NIPORT N=68	BRAC N=218	GS N=21	TOTAL N=307
Good behavior with the child: more caring, no violence	23	48	57	43	30	58	81	53
Maintenance of cleanliness	44	20	4	25	38	13	0	18
Immunization of the child	27	14	13	17	25	6	5	10
Playing with the child	4	17	9	13	4	15	10	12
Supplementary feeding	14	14	16	14	15	8	0	9
Breast feeding	3	5	4	4	6	3	5	4
Respond to child's queries	1	2	0	2	2	3	0	3
Allowing the child playing with other children	2	7	4	6	3	3	0	3
Colostrums feeding	4	3	7	3	0	2	0	2
Providing care without gender bias	0	1	0	1	0	1	0	1

Multiple responses

Although the findings of the previous table (table 4) demonstrated that the care giving practices of almost all the caregivers are changed after receiving messages from the FLWs, only about half (43-53%) of them reported that they are practicing good behavior with the child (more caring, no violence) and the remaining issues of care giving practices were rarely mentioned by the caregivers.

Exposure to IEC materials during message transmission

Use of different IEC materials is important for effective communication at the beneficiaries' level. Table below delineates the status of exposure of the caregivers to different IEC materials during receiving messages from the FLWs:

Table 6: Distribution of caregivers by exposure to different IEC materials (such as, posters, pictures, leaflets etc.) during receiving messages from the FLWs: in percent

Responses	Mother				Father			
	NIPORT N=236	BRAC N=771	GS N=46	TOTAL N=1053	NIPORT N=73	BRAC N=235	GS N=21	TOTAL N=329
Yes	40	51	67	49	33	45	43	42
No	60	49	33	51	67	55	57	58

Mothers are almost equally divided on their responses of being exposed to IEC material or not, while majority of the fathers (58%) mentioned that they were not exposed to any IEC material during their interaction with FLWs.

2. Knowledge and practice on Antenatal Care

Antenatal check-ups provide the opportunity to assess and treat the complications during pregnancy and to take necessary measures for any unexpected complications during delivery. The FLWs are supposed to counsel the pregnant mothers on important issues of ANC like necessity of additional diet and rest, immunization of mother and child, breast feeding, danger signs of pregnancy, birth planning etc. The caregivers were assessed by their perception on necessity of antenatal care.

Table 7: Distribution of caregivers by perception on necessity of antenatal care: in percent

Perception on necessity of antenatal care	Mother				Father			
	NIPORT n=318	BRAC n=1064	GS n=68	Total n=1450	NIPORT n=162	BRAC n=520	GS n=28	Total n=710
Yes: antenatal care is necessary	99	98	100	99	99	96	100	97
Not necessary	1	2	0	1	1	4	0	3

The perception of the caregivers on necessity of antenatal care was universal.

The caregivers were asked to mention different types of antenatal care necessary for a pregnant mother.

Table 8: Distribution of caregivers by their knowledge on different types of antenatal care necessary for a pregnant mother: in percent

Different types of antenatal care	Mother				Father			
	NIPORT N=314	BRAC N=1047	GS N=68	TOTAL N=1429	NIPORT N=160	BRAC N=497	GS N=28	TOTAL N=685
Nutritious and supplementary food	95	91	74	91	91	95	96	94
Routine checkup during pregnancy	50	61	41	58	51	70	71	66
Rest	57	64	65	63	63	66	71	65
Avoidance of heavy work	69	77	72	75	63	60	46	60
TT vaccination	72	58	43	61	51	50	64	50
Delightful and anxiety free environment	11	16	12	14	9	11	0	10
Iodized salt, iron and folic tablet	5	10	3	9	4	5	7	5
Keeping mother free from anxiety	2	4	7	4	3	3	4	3

Multiple responses

An overwhelming majority (91-94%) of the caregivers mentioned about the necessity of nutritious and supplementary food and exactly half to three-quarter (50-75%) of them stressed the necessity of routine checkup during pregnancy, rest, avoidance of heavy work and TT immunization for the pregnant mothers. However, other important issues of ANC, such as, creation of cheerful and anxiety free environment, providing iodized salt, iron and folic tablet and keeping mother free from anxiety was very poorly (3-14%) mentioned by the caregivers.

The caregivers were as asked to mention different measures to be taken to ensure the delivery of a healthy baby.

Table 9: Distribution of caregivers by their knowledge on different measures for ensuring delivery of a healthy baby: in percent

Measures for ensuring delivery of a healthy baby	Mother				Father			
	NIPORT n=318	BRAC n=1064	GS n=68	Total n=1450	NIPORT n=162	BRAC n=520	GS n=28	Total n=710
Routine checkup during pregnancy	52	63	41	60	53	72	74	68
Providing adequate nutritious food	75	62	54	65	53	53	41	52
Immunization of mother	68	54	31	56	38	31	22	32
Avoidance of heavy works	48	40	61	43	21	30	0	26
Taking adequate rests	35	36	31	36	22	21	11	21
Regular Weight measurement	7	12	6	10	5	5	4	5
Keeping mother free from anxiety	1	2	0	2	2	1	0	1

Multiple responses

Majority of the caregivers stressed the necessity of performing routine checkup during pregnancy and providing adequate nutritious food to the expecting mother as pre-requisite of giving birth to a healthy baby. Immunization of the mother was mentioned by about one-third to half (32-56%)

of the caregivers followed by avoidance of heavy works by the pregnant mothers (26-43%) and taking adequate rests (21-36%). The issue of keeping the mother free from anxiety, an important pre-requisite of delivering a healthy baby (also emphasized in the training curricula of the FLWs), was again very poorly mentioned by the caregivers.

The caregivers were as asked to mention about the antenatal cares they had received during their last pregnancy.

Table 10: Distribution of caregivers by receiving different types of antenatal cares during their last pregnancy: in percent

Antenatal care	Mother				Father			
	NIPORT n=318	BRAC n=1064	GS n=68	Total n=1450	NIPORT n=162	BRAC n=520	GS n=28	Total n=710
Providing nutritious and additional food	96	94	85	94	94	95	93	95
TT immunization	87	79	56	79	74	72	82	73
Avoiding heavy works	74	74	74	74	72	59	64	62
Providing iodized salt, iron and folic tablet	6	18	3	14	9	26	54	23
Regular health check up	23	37	21	33	15	23	14	20
Keeping the mother cheerful and free from anxiety	14	19	15	18	12	21	4	18
Preparation for safe delivery and Emergency Obstetric Care	4	4	4	4	7	11	0	9
Assuring the mother to welcome birth of a child without gender bias	1	3	6	3	2	6	18	6

Multiple responses

Overwhelming majority of the caregivers were provided with nutritious and additional food (94-95%) and about three quarter (62-79%) of them received TT immunization and avoided heavy works during their last pregnancy, while, the other cares of ANC received by the caregivers was very limited.

One major finding from the above table is, only one-fifth to one-third (20-33%) of the respondents informed about receiving regular health check up during last pregnancy, while, in the previous tables (table 8 and 9) findings show that about two-third (58-68%) of the caregivers were aware on necessity of receiving antenatal check up in order to ensure healthy mother and newborn. So, a wide gap persists between the knowledge and practice of the caregivers in case of antenatal visits. The authority of UNICEF, GOB and allied agencies may reconsider more initiatives to motivate the caregivers to increase their level of practice regarding this issue.

3. Knowledge on development of child

A child is supposed to be brought up both physically and mentally in a proper way. To assure a sound mind in a sound body, a child should be provided with some specific cares, hence, the caregivers should have proper knowledge on different measures of assuring physical and mental development of a child. The level of knowledge of the caregivers was assessed regarding different cares necessary for proper physical and mental development of a child.

Table 11: Distribution of caregivers by knowledge on different cares necessary for proper physical growth of a child: in percent

Knowledge on different cares necessary for proper physical growth	Mother				Father			
	NIPORT n=318	BRAC n=1064	GS n=68	Total n=1450	NIPORT n=162	BRAC n=520	GS n=28	Total n=710
Providing adequate nutritious food	73	63	59	65	60	63	82	63
Maintenance of cleanliness	69	59	59	61	57	48	59	50
Colostrums feeding	40	43	37	42	26	48	78	44
Breast feeding	30	35	18	33	21	42	71	38
Consultation with doctors during illness	21	29	17	27	36	30	22	31
Proper care to the child	15	31	8	26	24	21	8	21
Routine immunization	40	24	8	27	23	14	4	16
Protecting from dangers	4	5	2	5	4	7	0	6

Multiple responses

More than half (50-65%) of the respondents have knowledge on providing adequate nutritious food and maintenance of cleanliness for proper physical growth of a child. Colostrums feeding was mentioned by 40-42% of the respondents which was followed by breast feeding (27-31%) and consultation with doctors during illness (27-31%). A very meager proportion of the caregivers are aware about protecting the child from dangers as the measures of proper physical growth.

Table below delineates the level of knowledge of the caregivers regarding different cares necessary for proper mental development of a child.

Table 12: Distribution of caregivers by knowledge on different cares necessary for proper mental development of a child: in percent

Different cares necessary for proper mental development	Mother				Father			
	NIPORT n=318	BRAC N=1064	GS n=68	Total n=1450	NIPORT n=162	BRAC n=520	GS n=28	Total n=710
Provide loving care	63	60	50	60	55	69	85	67
Taking the child to lap	60	61	47	60	39	65	77	60
Playing with the child	51	45	47	46	41	37	34	38
Taking child outside for a walk	25	30	3	28	25	26	0	25
Chatting with the child	16	29	12	25	24	23	27	23
Friendly behavior	10	16	7	14	26	20	31	22
Giving enough time	13	11	2	11	13	10	0	10
Responding to the queries of the child	5	10	0	8	7	7	0	7

Multiple responses

Majority of the caregivers are aware about providing loving care to the child (60-67%) and taking the child to lap (60%) have positive impact on mental development of a child. A quarter of the caregivers stressed the necessity of taking the child outside for a walk (25-28%) and chatting with the child (23-25%). However, the responses on friendly behavior, giving enough time and responding to the queries of the child were limited.

4. Practices by the caregivers on age appropriate interactive care

The caregivers are supposed to be aware of providing age appropriate interactive care to the child. The following tables (15-19) delineate the practices of the caregivers on age appropriate interactive care. The table below specifies interactive care for children within ages 0 to 6 months.

Table 13: Distribution of care givers providing interactive care by ages of children: in percent

Interactive care	0-6 months		7-18 months		19-36 months		37-60 months	
	Mothers	Fathers	Mothers	Fathers	Mothers	Fathers	Mothers	Fathers
Feeding the child: Breast feeding (mothers only)/supplementary feeding/normal feeding	66	14	45	16	35	18	21	14
Help child to stand and walk			22	25				
Help child to grow by stretching/climbing/running					11	19		
Make child self dependent by allowing to eat, urinate and defecate on own					9	3	22	15
Eye contacts and making sounds during feeding of child	24	8	16	6	12	7		
Whispering songs and rhymes/encourage child to also sing	15	3	21	8	24	9	32	20
Stimulating child with caring sounds	16	10	12	7				
Arousing in curiosity by asking questions and responding			9	7	17	11		
Remove fear			16	18	27	21		
Stimulate child to solve small problems			2	0	16	11		
Allow child to express and give views					11	13	8	13
Use pictures and books/and encourage to draw using drawing materials from locality					9	6	6	5
Use stories to teach child					16	12	29	17
Praise child for their performances					18	12	24	16
Make child inquisitive by asking questions					12	7	24	14
Playing hide and seek	11	7	27	12	43	25		
Indulging to light exercises by child with making pleasant sounds	16	7	11	6				
Keeping hanging toys within reach	16	5						
Participating with child in playing with hands and legs/participate with child in playing			38	42	24	14		
Help in building routine habits: brush teeth, hand washing and dressing			12	10	36	21	48	41
Making the child aware of the names of objects in the surroundings			23	31	18	15		
Encouraging child to identify organs of the body			7	11	22	19		
Create opportunity for the child to play with others and cooperate					55	64	29	24
Help correcting vocabularies/ learn language					16	13	25	25
Encourage child to perform family duties/ and assume responsibilities							3	6
Give ideas about environment					12	9	26	22
Teach child manners/ behave with elders							28	33

Multiple responses

Findings show the overall performance of the caregivers in providing different interactive cares as appropriate for the respective age of the child is not satisfactory. With very few exceptions, only about a quarter or even less than a quarter of the caregivers reported providing different interactive cares to ensure proper growth and development of their child.

On interactive cares like feeding, help child to stand and walk, help child to grow by stretching, climbing and running, make child to eat, urinate and defecate on their own the mothers remain

major caregivers comparatively in all ages, but father’s roles increase with the increase in age of the child, particularly from late age within 7 to 18 months and above.

On interactive cares like eye contacts and making sounds during feeding of child, whispering sounds and rhymes/encourage child also to sing, stimulating child with caring sound, arousing curiosity by asking questions and responding, remove fear, stimulate child to solve small problems, allow child to express and give views, use pictures and books and encourage to draw, use stories to teach child, praise child for their performances, and make child inquisitive by asking questions the roles of fathers remain consistently lower, except in ages under category 37 to 60 months.

On interactive cares like playing hide and seek, indulging child to light exercises, keeping hanging toys within reach, participating with child in playing with hands and legs, helping building routine habits, like brush teeth, hand washing, and dressing both mothers and fathers play comparable roles with slight edge of mothers over the fathers

On several interactive cares, like making the child aware of the names of objects in the surroundings, encouraging child to identify organs of the body, create opportunities for the child to play with others and cooperate, help correcting vocabularies and learn language, encourage child to perform family duties and assume responsibilities, give ideas about environment, and teach child manners/behave with elders, the data in the table above evidence that the fathers contribute (interact) more than the mothers.

5. Knowledge and practice on child’s safety measures

Caregivers’ awareness about Safety and security of a child is vital for child’s growth and development, both physically and mentally.

Table 14: Distribution of caregivers by knowledge on different measures of child’s safety: in percent

Different measures of child’s safety	Mother				Father			
	NIPORT N=318	BRAC n=1064	GS n=68	Total n=1450	NIPORT n=162	BRAC n=520	GS n=28	Total n=710
Keep away child from harmful equipment and elements: Knife, sharp things, medicine, poison	68	58	59	60	52	63	71	60
Keep the child away from objects causing accidents: fire, stove, cooking place, hot water	59	45	35	47	44	53	71	51
Keep the baby in a safe place from rolling down on floors	24	37	38	34	25	40	61	37
Keep away materials that child can use harmfully (swallow: Doll, pins, buttons)	19	22	41	23	10	28	39	25

Multiple responses

Majority of the parents (60%) are aware of keeping the dangerous tools (potential for causing bodily injuries) away from the child. Fathers (51%) are more aware than the mothers (47%)

about the risks of accidents of a child being in close proximity to fire, burning stove, hot water. About one third of the parents (34-37%) are aware of placing a child in a secure place wherefrom he/she does not accidentally fall and cause injuries to body. Very few of the parents (mothers: 23% and fathers: 25%) are however, aware of keeping the child from objects he or she can swallow and cause physical harm.

For safety and security of a child the surrounding environment of a house is equally risky for a child.

Table 15: Distribution of caregivers by status of possessing harmful and dangerous element around residence: in percent

Responses	Mother				Father			
	NIPORT n=318	BRAC n=1064	GS N=68	Total N=1450	NIPORT n=162	BRAC n=520	GS n=28	Total n=710
Yes	52	78	90	73	36	52	46	48
No	48	22	10	27	64	48	54	52

Surprisingly mothers (73%) are far more aware about the risks of home surroundings than the fathers (48%).

The surroundings of a house can become risky if it is abounded with ditch, busy roads, open well or rivers, raised places (hilly) or rail lines.

Table 16: Distribution of caregivers by possessing different harmful and dangerous elements around residence: in percent

Harmful and dangerous elements	Mother				Father			
	NIPORT n=166	BRAC n=831	GS n=61	Total n=1058	NIPORT n=59	BRAC n=270	GS n=13	Total n=342
Pond, ditch, drain	65	83	66	80	72	81	54	78
Road	46	39	85	43	42	33	62	36
Well / river	4	3	0	3	7	4	0	4
Sloping of hill or residence	6	1	0	1	5	0	0	1
Rail way	1	2	0	2	0	1	8	1

Multiple responses

Majority of both the parents are aware of the risks to the life of a child if there are ponds/ditch/open drain (78-80%), less than half of the parents (36-43%) are aware of the dangers of a house being located on a road side. But parents are hardly aware of the potential risks of other situations surrounding a house.

6. Knowledge on roles of games and toys

Child's participation to games and playing is important for their healthy growth and development.

Table 17: Distribution of caregivers by status of awareness on importance of games in child's development: in percent

Responses	Mother				Father			
	NIPORT n=318	BRAC n=1064	GS n=68	Total n=1450	NIPORT n=162	BRAC n=520	GS n=28	Total n=710
Yes: has importance	94	89	96	90	96	92	96	93
No importance	6	11	4	10	4	8	4	7

Overwhelming majority (90-93%) of the parents is aware on the importance of children participating in games and in playing.

In response to a query on the importance of children participating in games and in playing, the parents gave different reasons as means to their growth and development.

Table 18: Distribution of caregivers by their knowledge on different roles of games in child’s development: in percent

Variable: Role of games in child’s development	Mother				Father			
	NIPORT n=298	BRAC n=948	GS n=65	Total n=1311	NIPORT n=156	BRAC n=479	GS n=27	Total n=662
Development of intellect and learning	66	80	88	77	59	80	89	75
Inducing mobility of a child	24	35	57	33	22	41	56	37
Enhancing socialization skills	36	15	3	19	35	18	4	21
Improvement of skills expression (language) and communication (interaction)	15	17	3	16	10	15	4	14
Engender self- confidence and self-reliance	4	2	0	3	3	3	4	3

Multiple responses

About three quarters of the caregivers (75-77%) specified about games and toys as means of developing the intellect and the capacity to learn (acquire knowledge). But table above evidences that the caregivers’ level of awareness on other components of influences of games and toys on child’s growth declines with each subsequent category of responses, such as ‘Inducing mobility’ (33-37%); ‘Enhancing socialization skills’ (19-21%); ‘Improvement of language and communication skills’ (14-16%); and Engendering self confidence’ (3%).

7. Status of Caregivers’ indulgence to violence with child

Child’s experiences and exposure to a violent act moulds his or her development, mental development.

Table 19: Distribution of caregivers by status of indulgence to violent acts (beating) with child: in percent

Status of parents’ indulgence to violent acts with child	Mother				Father			
	NIPORT n=318	BRAC n=1064	GS n=68	Total n=1450	NIPORT N=162	BRAC n=520	GS n=28	Total n=710
Yes	38	20	18	24	18	8	11	10
No	62	80	82	76	82	92	89	90

Very few parents revealed regarding their treatment of child with violent acts. However, more mothers (24%) than the fathers (10%) revealed about their status of indulging to violence with child.

8. Everyday care giving practices in the family

The survey questionnaire for the beneficiary targets provided for obtaining comparative opinions on caring roles of parents once asking the respondents regarding their own contributions and again asking them to opine about their spouses.

Table 20: Distribution of care givers by their responses on child care practices by time periods and by self response and responses for the spouse

Acts or practices on child care	Self response		Response for spouse	
	Mothers	Fathers	Fathers responding on mothers' act	Mothers responding on fathers' act
A. Morning to noon				
Keeping the baby on the lap	28	8	22	20
Go outside for a walk	8	20	9	20
Provide supplementary food	66	24	23	9
Play with the child / provide loving care	32	23	17	3
Maintain cleanliness, help in brushing teeth	82	20	13	12
Others	42	17	11	14
B. Noon to evening				
Help in bathing	90	22	88	19
Help in sleeping	67	13	60	10
Give food	61	12		
Keep the child on the lap / provide loving care	9	2	13	10
Others	46	10	14	20
C. Evening to night				
Keeping the baby on the lap / provide loving care	45	34	56	41
Help in sleeping	58	24	73	20
Feeding milk/eat with child	41	14	4	3
chat with child/help in reading/play with the child/ go outside for a walk	42	39	48	26
Others	35	32	18	15

Multiple responses

The roles as specified by the respondents and their contributions on caring of the child evidence that in most cases the opinions of the respondents' self assessment and that by their spouses almost match. In most cases mothers' role remain predominant. Care giving practices differ by different time of the day. As evident from the table above, the practice of brushing teeth is repeated neither in the noon nor in the night, while the practice of bathing the child is only applicable at noon. The practice of making the child sleep is not observed in the morning. Encouraging the child to play is observed in the pre noon period (morning) and also in the evening but not at noon.

Chapter VII

Findings of Qualitative Investigations

Qualitative investigations were conducted through assessment of roles of Program Managers, Trainers performances, FGDs with other care givers and observation child care in selected households.

1. Assessment of the roles of Program Mangers

Total number of program mangers interviewed were 52 in the distribution of: NIPORT—20; BRAC—29; GS—3 and the program managers include UFPO (8), MOMCH (1), HI (5), FPI (3), FWV (2), AHI (1), Area Manager (17), Program Officer (13), and Center Manager (2). Average age of the Program Managers range between 37 to 48 years and the average education is about 14th grade completed. All of them except one mentioned that they participate in the ECD program. They have got one day orientation on ECD program.

About one third of the program mangers (39%) mentioned that they encountered problems during their participation to supervise the implementation of ECD programs. Most frequently mentioned problems by the program mangers, particularly those belonging to NIPORT and BRAC, was irregular payment of salaries (25%); about one fifth of them mentioned that they did not receive any materials to perform supervisory functions; about one sixth (15%) alleged that the field workers are unable to perform field functions on ECD and one tenth suggested that the field workers needed further training. One fifth of the program mangers mentioned that they faced problems in conducting supervisory functions in the remote areas. And again one tenth mentioned that they were not specifically assigned on performing ECD functions and 5% mentioned that the community people are not cooperative on ECD programs.

Majority of the Program mangers assessed the quality of the training program as good (59%), while more than a third (39%) assessed the quality of the training program as moderate and 6 percent gave adverse opinions. Just two third of the Program Managers (67%) opined that the FLWs succeeded in using the training in the implementation of ECD programs in the field, while one third of them hold contrary opinions.

On improvement of the quality of the training programs, the Program managers gave several suggestions.

Table 1: Distribution of the Program Managers by suggestions to improve quality of training programs on ECD: in percent

Variable	NIPORT n=20	BRAC n=29	GS n=3	TOTAL n=52
Repeat training	55	59	0	54
Need skilled permanent trainers	20	21	33	21
Monitoring and recording system	30	17	0	21
Knowledge on ECD should reach to the people who lives in city	10	7	0	8
Films may be used as medium of training	5	0	0	2
Increase advertisement	10	14	0	12
Co- ordination of internal program	5	0	0	2
Need Banners	20	3	0	10
Reward best employee	0	17	0	10
Co-ordination of public and private works	10	7	0	8
Arrange monthly meeting for ECD	5	14	33	12
Arrange programs both for educated and literate	5	0	0	2
Needs manual for implementation of the program	5	0	0	2
Arrange training for TTBA	5	0	0	2
Arrange recording system	5	7	0	6
Arrange allowances for field workers	0	21	0	12
Need specific workers	0	14	67	12
The project should be continued in a regular basis	0	3	0	2
Adequate fund is needed for the project	0	3	0	2
Recruit educated SK	0	3	0	2

Majority of the Program Managers (54%) suggested for repeat/refreshers' training, about a fifth (21%) suggested introducing monitoring of training programs, and another fifth (21%) suggested enhancing the skills of trainers.

2. Assessment by Field Trainers

The field trainers were pooled mostly from among the training manpower of the Implementing agencies: NIPORT, BRAC, and GS and they were academically adequately qualified (masters degree holders, doctors). All the field trainers received training as trainers for a period of 4 to 5 days.

Three fourths (75%) of the field trainers opined that the duration of training for FLWs was adequate, 25% of them did not think it as adequate. Those who thought the duration of FLWs training as inadequate, they suggested training programs to be extended from 3 to 10 days.

Almost all the trainers (94%) said that they received ECD training manual, but the field work manual was received by only 59% and the flip charts were received again by only 56%. The trainers mentioned about several methods applied during training and they particularly mentioned about group discussions as a means of teaching.

Almost all the trainers (90%) mentioned that the training program was conducted as per schedule following the training manual. On the curricula, the trainers emphasized on refreshers' training and also suggested that the language of the manual need to be made easier to understand by the FLWs.

3. FGD Findings

Focus Group Discussions were held with Grand Parents (17) and with elderly siblings (16). FGDs were conducted approximately in every third cluster (90/3) in 17 Districts. Total participants in the FGDs are 263 persons of whom 87 are males and rest females with age range of 25 to 65 years. The educational qualifications of the FGD participants range between no educations (0) to graduation. The different occupations that the participants belong to are: Housewives, Business, Farmer, Service, Teacher, Imam, unemployed, Carpenters and day labourers. The distribution of the FGD participants (263) is as follows: Grand parents: 140; and Siblings: 123.

According to the participants the care givers of child in order of importance are: Mothers, fathers, elderly sisters and brothers, grand parents (paternal and maternal—males and females), aunt, uncle, neighbors and household helpers (servants: females and males). Awareness about the cutoff age of children is: 0-5 years: 45; 0 to 14 years: 47; and 0-18 years: 33 and the rest (138) could not identify any cutoff age for child.

The indicators of growth of a child as identified by the participants are: Health improvement: 48; Growth of physique/body/organs: 33; Gains in weight: 19; and Movement of a child (walking): 3; and the rest (160) gave irrelevant answers.

The indicators of mental development of child as identified by the FGD participants are: development of intellect (brain)/ learning/ knowledge: 30; Weeping, laughing, becoming happy: 13; Imitation/socialization/recognizing others: 10; playing and going out: 3; and others (reading, drawing): 5 and the rest (202) gave irrelevant answers.

The FGD participants identified the roles of different caregivers in the following distribution:

Table 1: Roles of different caregivers as perceived by the FGD participants

Caregivers	Roles
Mothers	Breast feeding (4), Bathing (4), Feeding the child (22), Keeping the child clean (3), Trying to make child to talk (23), Keeping the child under constant watch (9), Helping the child to read and write (24), playing with child (2), responding to child's questions (2), keeping the child in safe and in security (2), providing treatment to child during illness (2), and guiding the child on manners (4)
Fathers	Keeping the child clean (2), Helping the child to read and write (3), caring the child (15), buying food, toys, clothing (4), providing treatment to child during illness (3)
Siblings	Playing with child (9), Lapping the child (10), feeding the child and helping the child to sleep (8), helping to read and write (10), helping the child to understand and learn environment and the objects (3), Buy toys (3)
Grand parents	Lapping the child (8), taking the child outside (3), telling stories (7), helping the child to sleep (3), feeding the child (3), bathing the child (8), making the child to understand/learn objects and become adjusted to environment (8), buy toys (3)

Following are the responses identified by the FGD participants' on their understanding of the enabling factors/environment for the child's growth and development:

- Building the living/family environment facilitating the growth and development of the child: 8;
- Ensuring open and clean environment: 6;
- Ensuring outside the family environment safe and secure: 8; and
- Ensuring space for games and play for the child: 9

Rest (232) gave irrelevant or no answer.

Following are the responses identified by the FGD participants' on their understanding of the harmful factors/environment for the child's growth and development:

- Removing sharp equipment/tools from the reach of the child: 14;
- Keep the child away from fire: 2
- Discourage the child from fighting with their playmates: 14
- Avoid threatening, teasing, scolding: 12;
- Keep the child from outside/places posing risks or prone to accidents: 10;
- Avoid smoking or taking any drug in front of the child: 5

Rest (206) gave irrele vant or no answer.

Messages disseminated by the FLWs on ECD:

- Feeding the child with nutritious food: 6;
- Keeping the child clean: 16;
- Breast feeding, colostrums, supplementary feeding: 10;
- Playing with child: 2;
- Immunizing the child vaccines and Vit-A: 12;
- Avoid teasing, beating the child: 12
- Ensuring treatment of the child: 2

Rest (203) gave irrelevant or no answer.

Method of disseminating messages/ contacts/discussions:

- Interpersonal Contacts: 9
- Group discussions: 50

Rest (204) gave irrelevant answers.

Changes in the knowledge of the caregivers due to contacts and counseling by the FLWs:

- Making the caregivers aware of child immunization: 263
- Induced the caregivers to be more friendly (playing, telling stories) and interactive with child: 20;
- Encouraged the caregivers to be prompt in taking the child to doctors for immediate treatment : 133;
- Promoting the quality of feeding the child with nutritious food: 150;
- Discouraged teasing, beating, threatening, scolding the child: 54;
- Helping the child to learn manners: 123

Conclusion:

FGD findings underscore that the knowledge and practices of the participants (caregivers other than the parents) on:

- Four components, such as ensuring immunization of the child, quality feeding (nutritious food), treatment of child during illness and detaching the child good manners have improved; while
- The intimate care practices such as keeping the child clean, ensuring safe and secure environment, giving warm care, playing with child, interacting with child have remained rather neglected.
- The findings also suggest that the FLWs were not maintaining frequent contacts with caregivers other than the parents

4. Findings of Household Observations

A checklist was used for conducting household level observations to ascertain the status of home environment inside and outside suiting the need for healthy growth and development of a child. Analyses in table 2 specify findings of 89 households, one each from a cluster, by major variables: Space, cleanliness, security (inside and outside), sanitation and availability of drinking water. The findings are categorized by age of child (in months) from 0 to 60 months. All the variables have been investigated pertaining to the growth and development of a child. Observations of the households were conducted for the whole day by a locally trained observer (female) and supervised by trained investigators.

Table 2: Distribution of overall status of home environment by working areas of different agencies

Variable	NIPORT n=20		BRAC n=65		GS n=4		Total n=89	
	n	%	n	%	n	%	n	%
House space								
Adequate	14	70	53	82	3	75	70	79
No adequate	6	30	12	18	1	25	19	21
Cleanness status								
Clean: in side	12	60	48	74	2	50	62	70
Clean: out side	8	40	28	43	2	50	38	43
Dirty: in side	8	40	17	26	2	50	27	30
Dirty: out side	12	60	37	57	2	50	51	57
Home security								
Secured	8	40	25	38	3	75	36	40
Unsecured	12	60	40	62	1	25	53	60
Sanitation status								
Sanitary latrine	11	55	39	60	2	50	52	58
Pit latrine	5	25	17	26	2	50	24	27
Hanging latrine	2	10	7	11	0	0	9	10
No latrine	2	10	2	3	0	0	4	5
Drinking water								
Tub well	20	100	63	96	4	100	87	98
Tap	0	0	1	2	0	0	1	1
Others (rain water)	0	0	1	2	0	0	1	1

Space: Space in three fourths of the households (79%) has been adjudged to be adequate.

Cleanliness: Seventy percent of the households are clean inside, while only 43% are clean outside.

Security (Inside and outside): Less than half (40%) of the households are considered in secure.

Sanitation: More than half of the households (58%) have sanitary latrines another quarter has pit latrines (27%).

Drinking water: Almost all the households (98%) have tube wells.

Operational criteria used by investigators:

House space (relatively large airy and clean space): If there is available space for free movement of the family members in the house, it is considered adequate; the opposite status is not adequate.

Cleanliness: If dirt or rubbish in the form of left-over food or any other items is not visible in and around the house, it is considered clean; the opposite status is dirty.

Home security: If the household has a proper boundary and is protected from open ponds, rivers, canals, ditches or busy highways, it is considered secured; if the household is situated beside a highway, etc. and without proper fencing, it is considered not secured.

In about three fourths of the households (76%), the children were observed to have been participating in games and plays, while in about a quarter of the households (24%) the children were observed to have been not participating in games and plays (table 3 and 4 below).

Table 3: Distribution of households by children’s participation in games and plays by age group

Children’s participation in games and plays	0-5 months n=11		6-11 months n=11		12-24 months n=19		25-36 months n=16		37- 48 months n=16		49- 60 months n=16		Total n=89	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Children’s participating in games and plays	4	36	7	64	17	89	13	81	13	81	14	88	68	76
Children’s not participating in games and plays	7	64	4	36	2	11	3	19	3	19	2	12	21	24

Table 4: Distribution of households by children’s participation in games and plays by working areas of different agencies

Children’s participation in games and plays	NIPORT n=20		BRAC n=65		GS n=4		Total n=89	
	n	%	n	%	n	%	n	%
Children’s participating in games and plays	14	70	51	78	3	75	68	76
Children’s not participating in games and plays	6	30	14	22	1	25	21	24

The children were observed to have been participating in different indigenous games and also playing with local or home made toys and toys purchased from markets .

Table 5: Distribution of households by status of children playing by types of games and toys

Variable	NIPORT n=20		BRAC n=65		GS n=4		Total	
	n	%	n	%	n	%	n	%
Children Playing without Toys								
Kanamachi, Kutkut etc.	1	5	4	6	0	0	5	6
Running away with others	1	5	8	12	1	25	10	11
Children Playing by local or home made Toys								
Football by a Jambura	0	0	1	2	0	0	1	1
Artificial/playing kitchen instruments (Ranna-Banna)	3	15	9	14	1	25	13	15
Bambu stick& Soil (Ghar-Baree)	0	0	1	2	0	0	1	1
Unusable logistics: Can of Cold drinks, Verities family using pot and others	1	5	4	6	0	0	5	6
Children Playing with toys purchased from markets								
Artificial flower	1	5	5	8	0	0	6	7
Junjuni, toy mobile, various flute	4	20	14	22	1	25	19	21
Color Book, Khata, picture, drawing pencil, slat etc	9	45	34	52	2	50	45	51
Doll, toy car etc.	1	5	4	6	1	25	6	7

Multiple responses

Three major categories of involvements of children in games and plays were observed and these are:

- Children playing without toys but are engaged in physical activity like playing hide and seek (6%: kana machi) and or running/chasing one another (11%);
- Children playing with local or home made toys: jambura as football: 1%; mock cooking: 15% (girls); constructing houses with soil/bamboo sticks (1%) and with coke empty can, utensils (6%);
- Children playing with toys purchased from markets : artificial flowers (7% girls), Jhunjhuni / toy mobile: 21%;
- Children playing through participation in drawing: colour books, pictures, drawing pencils slates: 51% ; and
- Children playing with standard/ dolls and toy cars purchased from markets: 7%

Analyses of the findings above evidence that overwhelming majority of the children (78%) were observed to have been playing with toys purchased from markets and tools/commodities.

Children were observed to have been engaged in games and in playing with different companions, such as children playing with children and children playing with grown up persons/caregivers (table 6 and 7).

Table 6: Distribution of households by children’s companions in games and plays by age groups

Children’s companions in games and plays	0-5 months n=11		6-11 months n=11		12-24 months n=19		25-36 months n=16		37- 48 months n=16		49- 60 months n=16		Total n=89	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Children playing with children	0	0	0	0	3	16	5	31	7	44	8	50	23	26
Children playing with his/her mother	2	18	3	27	5	31	2	13	1	6	0	0	13	14
Children playing with his/her siblings	1	9	2	18	3	16	3	19	2	13	2	13	13	15
Children playing alone	0	0	1	9	2	11	1	6	2	13	2	13	8	9
Children playing with other family members	0	0	1	9	3	16	2	13	1	6	2	13	9	10
Others (servant)	0	0	0	0	1	5	0	0	0	0	0	0	1	1
Children not playing	8	73	4	36	2	11	3	19	3	19	2	12	22	25

Table 7: Distribution of households by children’s companions in games and plays by working areas of different agencies

Children’s companions in games and plays	NIPORT n=20		BRAC n=65		GS n=4		Total n=89	
	n	%	N	%	n	%	n	%
Children playing with children	5	25	17	26	1	25	23	26
Children playing with his/her mother	3	15	9	14	1	25	13	14
Children playing with his/her siblings	3	15	9	14	1	25	13	15
Children playing alone	2	10	6	9	0	0	8	9
Children playing with other family members	2	10	6	9	1	25	9	10
Others (servant)	0	0	1	2	0	0	1	1
Children not playing	5	25	17	26	0	0	22	25

Findings show that:

- About one tenth of the children (9%) were playing alone;
- Children playing with mothers (14%);
- Children playing with their elderly siblings (15%);
- Children playing with other family members (10%);
- Children playing with other children (26%); and
- Children playing with servants (1%)
- Exactly a quarter of the children (25%) do not participate in playing and games.

Findings evidence that the proportion of children playing with other children remain at a very low (26%); while most of the children (39%) are engaged in playing with their family members (mothers: 14%; siblings: 15%; and other family members: 10%) and a few of them (9%) play alone. Exactly a quarter of the children (24%) do not play at all.

Chapter VIII

Implications and Recommendations

A. Recommendations

Transforming the huge manpower over a long period into resources is a development challenge. Early Childhood Development is an important step towards achieving the same objective. The special program on ECD launched by Bangladesh Shishu Academy with support from UNICEF in collaboration with the govt. sector and NGOs in 17 districts and 90 Upazillas is a major step towards building a nation wide program on the same. Training of the Field Workers (FLWs) is an important program intervention in developing the ECD programs at the grass root levels. The current assessment of the training programs of the FLWs is vital in not only improving future training investments in the area but also for strengthening the implementation of ECD programs with the target audiences: the primary and secondary caregivers of child.

The assessment of the training programs has been conducted in a comprehensively designed evaluation study, which focused on:

- Investigating the quality and strength of the training programs;
- Evaluating the achievements of the FLWs in terms of knowledge and skills on dissemination of messages to the target audiences by investigating with FLWs themselves (670) both quantitatively and qualitatively from the primary (2160 mothers and fathers) and the secondary care givers and in addition independent observations of the practices pertaining to care of the children at household levels was also conducted.

Process effectiveness of training programs:

The major findings regarding processes effectiveness of the training programs suggest that the training of FLWs was conducted as per schedule and manual.

Recommendation 1: The trainers and the program mangers suggested arrangement of repeat training of the FLWs.

Recommendation 2: The trainers also suggested operation of systematic supervisory system backed by proper monitoring and reporting (feedback).

Recommendation 3: Although training manuals were supplied, but the materials like flip charts were not adequate and some of the trainers suggested that in future training programs may arrange for film shows.

Outcome effectiveness of the training programs:

As far as post training coverage of the ECD programs in terms of contacting the primary care givers, the findings suggest that the FLWs covered the mothers through interpersonal contacts adequately and efficiently almost at 75% level (single contacts in last three months), while contacts with Fathers were at the level of 51%, but the contacts with the secondary caregivers remain at low level. However, adoption of group discussions as dissemination method paid positive dividends in terms of reaching fathers and some of the secondary caregivers. But changing the values and practices on ECD will certainly depend on the active participation of the fathers and the secondary care givers, particularly the elderly relatives (grand parents).

Recommendation 4: Future ECD at the grass root levels may emphasize on group contacts (Uthan Baithak) while not reducing the importance of inter-personal contacts.

Recommendation 5: Strong monitoring system would facilitate identifying the specific area wise weaknesses of the programs and thereby help build programs with specific message focus and priorities.

Findings in terms of increase on the knowledge of the field workers on the cut off age of a child exist at 87% but on early childhood it declines to 77%. Knowledge of the field workers on physical growth also exist at 78%, while mental development on the learning process remains at comparable level (78%), but on need for increasing self confidence exists at 12%, on emotional development at 43% and on socialization skills at 38%.

On the other hand, the knowledge of the caregivers on physical growth ranges from 63% to 6%, and on emotional development, it ranges from 67% to 7% across different components. On interactive care practiced by the caregivers on most of the components by age specific needs, the level evidenced by the findings on care for physical growth is relatively higher compared to those on emotional and socialization skills. The awareness and practices of the care givers on allowing child to socialize with other children also remain at a low level and their practices on arranging (making available) games and playing items is also very limited and are not well planned. Observation of households, underscore that the situation of appropriate security for child exists at only 40% level.

Recommendation 6: Future training programs may emphasize more on supervised practice training sessions with priority on components pertaining to emotional and socialization skills.

Recommendation 7: Intensive orientation may be conducted targeting the care givers on arranging for playing items and commodities with pre planned set of such items by the implementers.

Recommendation 8: Safety and security of the child both within and outside the home is essential, which may be disseminated not only by the field workers but also through using mass media. Such programs need to depict realistic community situation and needs.

Analyses of comparative performances of the three implementing agencies evidence that the performances on training of BRAC remains to be the most effective followed by GS and then NIPORT.

Recommendation 9: To ensure uniformity of performances by the implementing agencies, the easiest and the quickest way is to arrange combined sessions between BRAC, GS and NIPORT in order to share their experiences mutually.

B. Major Implications and Conclusion:

As initial endeavor, the training program of FLWs may be adjudged to be effective and successful. However, in terms of gains at the level of beneficiaries (caregivers) both on knowledge and practicing the desired behavior, data demonstrate variances on several variables between the three agencies: Government, BRAC and GS. As regards appropriate awareness about the cut off age of a child and that of early childhood, about 90% FLWs of BRAC and GS demonstrated correct knowledge, while 22-28% of the Government FLWs did not have correct knowledge in this regard. A larger proportion of the field workers of BRAC mentioned all the three specific indicators of physical growth compared to those from the Govt. and GS. Majority of the FLWs of GS failed to mention changing shapes of child's body and gains in weight.

An overwhelming majority of the FLWs (88 and 85%) could mention about observation and participation to games as processes of learning by the children, while four processes, such as movement, making comparisons, agility and becoming curious, have been mentioned by only one tenth to one fifth of the respondents (11-19%). Imitation and asking questions (enquiring) as processes of learning have been mentioned by more than half to two third of the respondents. As many as seven components on the processes of learning (during training, the FLWs were oriented about as many as 15 different ways of learning) have been referred by about one third to one fourth of the respondents.

Most of the FLWs reiterated that interactive care should be ensured every day in a repeated manner (87%) and using the sensory organs (70%) where touching, embracing and other forms of care can be transmitted to the child. Most of the FLWs of BRAC (70%) and Govt. (60%) expressed that a child needs to grow in a clean and healthy environment. Excepting this component, the FLWs on all other important social, behavioral and environmental contexts are very poorly informed.

FLWs applied interpersonal contacts (52%), followed by Group discussions (47%) and monthly large meetings (13%) as methods of dissemination of ECD messages in the communities. Both the FLWs from Govt. and BRAC gave almost equal priorities to interpersonal and group contacts, but those from GS overwhelmingly prioritized group contacts (72%) and very poorly mentioned interpersonal contacts (22%) as means of disseminating ECD messages.

On average in a month, through interpersonal contacts an FLW disseminates ECD messages to 38 caregivers and through Group Contacts to an additional 65 caregivers. One may presume that an FLW contacts at least 100 care givers a month, of whom majority are mothers. An FLW conducts on average 5 group meetings in a month. Basing on the estimates of the FLWs

themselves, the performances of the HAs and FWAs on the coverage of beneficiaries through interpersonal and group contacts is comparable (table 1, chapter IV). Here it may be mentioned that FWAs by their assignments in their parent department (FP) are 100% female field workers, while the majority (about 75%) of the HAs are males. Hence, it may be prudent to engage both the cadre of workers in order to ensure a balance between contacts among male (Fathers) and female (Mothers) beneficiaries.

Analyses of findings demonstrate that the field workers usually recollected relatively easier lessons, such as those related to physical growth, while the difficult concepts, such as those related mental development, particularly referring to gender perspectives, could not be specified by a large number of FLWs. This signifies that there could be scope for further improvement of the training programs by ensuring intensive follow-up of the trainees during training in order to assess their capacity to comprehend and then reproduce the concepts in the most understandable manner (through intensive practice sessions). Needless to mention that most of the FLWs recommended extension of 3 day training program to an increased number of days, which would certainly facilitate designing practical training in the communities where they work. The authorities in the UNICEF, GOB and allied agencies may reconsider to find out through a comparatively smaller group training practices the reasons for such failures in comprehending or in recollecting the difficult concepts of ECD by the FLWs.

About three fourth of the mothers claimed that they were contacted by an FLW in last three months; while on the contrary, only half of the fathers said so. However, it was interesting to note that the caregivers in the catchments served by GS, claimed that more fathers than the mothers were exposed to such contacts. One of the reasons could be that the in the catchments of GS, the FLWs mentioned higher proportion of group meetings (Uthan Baithak) than interpersonal contacts, which might imply that groups were in mixed gender.

Interestingly, along the catchments served by the Govt. FLWs, the performances of FWAs are observed comparatively better than the HAs, as three quarters (77%) of the mothers were visited by an FWA (who is a female) in last three months. Almost a comparable proportion (74%) mothers also reported that they received ECD messages from the FWAs. Contrarily, about half of the mothers were visited by HAs in last three months (58%) and almost an equal proportion (56%) of the mothers reported that they received ECD messages from the HAs (who are mostly males). However, not much of difference was observed as regards contacts with fathers by the HAs and the FWAs and also on dissemination of ECD messages.

More than one-third to half (37-51%) of the caregivers reported that their level of knowledge increased on good rearing of child (physical and mental care of child; ensure good behavior and fulfilling their desires) and about one-third of them reported of increasing knowledge on prohibition of violence against child (28-37%) and making provisions for games and toys for the child and allowing the child to play (31-34%).

More than half (50-65%) of the respondents have knowledge on providing adequate nutritious food and maintenance of cleanliness for proper physical growth of a child. Colostrums feeding was mentioned by 40-42% of the respondents which was followed by breast feeding (27-31%) and consultation with doctors during illness (27-31%). A very meager proportion of the

caregivers are aware about protecting the child from dangers as the measure of proper physical growth.

In case of antenatal care, majority (58-68%) of the caregivers stressed the necessity of routine check up during pregnancy in order to ensure healthy mother and newborn, while only one-fifth to one-third (20-33%) of the caregivers informed about receiving regular health check up during last pregnancy. So, a wide gap persists between the knowledge and practice of the caregivers in case of antenatal visits.

Overall performance of the caregivers in providing different interactive cares as appropriate for the respective age of the child is not satisfactory. With very few exceptions, only about a quarter or even less than a quarter of the caregivers reported providing different interactive cares to ensure proper growth and development of their child.

On interactive cares like feeding, help child to stand and walk, help child to grow by stretching, climbing and running, make child to eat, urinate and defecate on their own the mothers remain major caregivers comparatively in all ages, but father's roles increase with the increase in age of the child, particularly from late age within 7 to 18 months and above.

On interactive cares like eye contacts and making sounds during feeding of child, whispering sounds and rhymes/encourage child also to sing, stimulating child with caring sound, arousing curiosity by asking questions and responding, remove fear, stimulate child to solve small problems, allow child to express and give views, use pictures and books and encourage to draw, use stories to teach child, praise child for their performances, and make child inquisitive by asking questions the roles of fathers remain consistently lower than the mothers, except in age groups from 37 to 60 months.

On interactive cares like playing hide and seek, indulging child to light exercises, keeping hanging toys within reach, participating with child in playing with hands and legs, helping building routine habits, like brush teeth, hand washing, and dressing both mothers and fathers play comparable roles with slight edge of mothers over the fathers.

On several interactive cares, like making the child aware of the names of objects in the surroundings, encouraging child to identify organs of the body, create opportunities for the child to play with others and cooperate, help correcting vocabularies and learn language, encourage child to perform family duties and assume responsibilities, give ideas about environment, and teach child manners/ behave with elders, the findings evidence that the fathers contribute (interact) more than the mothers.

In about three fourths of the households (76%), the children were observed to have been participating in games and plays, while in about a quarter of the households (24%) the children were not participating in games and plays. The children, who were engaged in playing, were participating in different indigenous games and with both locally crafted toys and toys purchased from markets.

Findings suggest that some of the children were not at all engaged in playing (25%); some were found playing alone (9%) and 40% of the children were playing within their home environment with mothers (14%), with elderly siblings (15%), with other family members (10%) and with servants (1%). Surprisingly, only 26% of the children were playing with other children.

FGDs with secondary caregivers (older siblings, in-laws/grand parents and elderly relatives) revealed that the knowledge and practices of the secondary caregivers have improved on four components, such as ensuring immunization of the child, quality feeding (nutritious food), treatment of child during illness and detaching the child good manners; while the intimate care practices such as keeping the child clean, ensuring safe and secure environment, giving warm care, playing with child, interacting with child have remained rather neglected. The findings also suggest that the FLWs were not maintaining frequent contacts with caregivers other than the parents.

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Appendix -1

List of Sample Clusters

List of Division, Districts and Upazilla wise cluster

Division	District	Upazilla	Number of Cluster
Khulna	1. Jessore	1. Abhoynagar	1. 1 cluster (BRAC)
		2. Keshabpur	2. 1 cluster (BRAC)
		3. Monirampur	3. 1 cluster (BRAC)
		4. Sadar	4. 1 clusters (BRAC)
			5. 1 cluster (BRAC)
			6. 1 cluster (BRAC)
		5. Jhikorgacha	7. 1 cluster (BRAC)
			8. 1 cluster (BRAC)
			9. 1 clusters (BRAC)
		6. Sharsha	10. 1 cluster (BRAC)
			7. Chowgacha
		8. Bagharpara	12. 1 cluster (NIPORT)
Sub Total: Jessore (8 upazillas)			Total 12 clusters (11 BRAC, 1 NIPORT)
Barisal	2. Barisal	9. Sadar	13. 1 cluster (BRAC)
		10. Babugonj	14. 1 cluster (BRAC)
		11. Banaripara	15. 1 clusters (1 BRAC)
			16. 1 cluster (NIPORT)
12. Muladi	17. 1 cluster (BRAC)		
Sub Total: Barisal (4 upazillas)			Total 5 clusters (4 BRAC, 1 NIPORT)
Dhaka	3. Gazipur	13. Kapasia	18. 1 clusters (1 GS)
			19. 1 clusters (1 BRAC)
		14. Sreepur	20. 1 clusters (1 GS)
			21. 1 clusters (1 BRAC)
15. Kaliakoir	22. 1 cluster (GS)		
Sub Total: Gazipur (3 upazillas)			Total 5 clusters (3 GS, 2 BRAC)
	4. Dhaka	16. Dhamrai	23. 1 cluster(NIPORT)
	5. Manikgonj	17. Shingair	24. 1 cluster (GS)
	6. Mymensingh	18. Trishal	25. 1 cluster (BRAC)
			26. 1 cluster (BRAC)
		19. Sadar	27. 1 cluster (BRAC)
	20. Ishargonj	28. 1 cluster (BRAC)	
	21. Fulpur	29. 1 cluster (BRAC)	
		30. 1 cluster (BRAC)	
	22. Muktagacha	31. 1 clusters (1 BRAC)	
		32. 1 clusters (1 NIPORT)	
23. Fulbaria	33. 1 cluster (BRAC)		
Sub Total: Mymensingh (6 Upazillas)			Total 9 clusters (8 BRAC, 1 NIPORT)

Division	District	Upazilla	Number of Cluster
	7. Sherpur	24. Nakla	34. 1 cluster (NIPORT)
		25. Sadar	35. 1 clusters (BRAC)
			36. 1 clusters (BRAC)
		26. Nalitabari	37. 1 cluster (BRAC)
		27. Jhinaigati	38. 1 cluster (BRAC)
28. Sreebardi	39. 1 cluster (BRAC)		

Sub Total: Sherpur (5 upazillas)		Total 6 clusters (1 NIPORT, 5 BRAC)	
	8. Narsingdi	29. Shibpur	40. 1 cluster (BRAC)
		30. Sadar	41. 1 clusters (BRAC)
			42. 1 cluster (NIPORT)
		31. Palash	43. 1 cluster (BRAC)
Sub Total: Narsingdi (3 Upazillas)		Total 4 clusters (3 BRAC, 1 NIPORT)	
Rajshahi	9. Bogra	32. Sherpur	44. 1 cluster (NIPORT) 45. 1 cluster (BRAC)
		33. Khahaloo	46. 1 cluster (BRAC)
		34. Adamdighi	47. 1 cluster (BRAC)
		35. Dhupchachia	48. 1 cluster (BRAC)
		36. Sadar	49. 1 cluster (BRAC)
		37. Shibgonj	50. 1 cluster (BRAC)
		38. Sonatola	51. 1 cluster (BRAC)
		39. Gabtoly	52. 1 cluster (BRAC)
		40. Sariakandi	53. 1 cluster (BRAC)
		41. Dhunat	54. 1 cluster (BRAC)
42. Nandigram	55. 1 cluster (BRAC)		
Sub Total: Bogra (11 upazillas)		Total 12 clusters (1 NIPORT, 11 BRAC)	
	10. Dinajpur	43. Sadar	56. 1 clusters (BRAC) 57. 1 clusters (BRAC)
		44. Biral	58. 1 clusters (BRAC) 59. 1 cluster (NIPORT)
		45. Bochagonj	60. 1 cluster (BRAC)
		46. Kaharal	61. 1 cluster (BRAC)
		47. Birgonj	62. 1 cluster (BRAC)
		48. Khanshama	63. 1 cluster (BRAC)
		49. Chiribandar	64. 1 cluster (BRAC)
		50. Parbatipur	65. 1 cluster (BRAC) 66. 1 clusters (BRAC) 67. 1 cluster (BRAC)
		51. Phulbari	68. 1 cluster (BRAC)
		Sub Total: Dinajpur (9 upazillas)	

Division	District	Uapzilla	Number of Cluster
Sylhet	11. Moulavibazar	52. Srimangal	69. 1 cluster (BRAC)
		53. Sadar	70. 1 cluster (BRAC)
		54. Rajnagar	71. 1 cluster (BRAC)
		55. Kulaura	72. 1 cluster (BRAC) 73. 1 cluster (NIPORT)
		Sub Total: Moulavibazar (4 Upazillas)	
Chittagong	12. Hobigonj	56. Madhabpur	74. 1 cluster (BRAC)
	13. Comilla	57. Chandina	75. 1 cluster (NIPORT) 76. 1 cluster (BRAC)
		Sub Total: Comilla (1 upazillas)	
	14. Chandpur	58. Sadar	77. 1 cluster (BRAC) 78. 1 cluster (NIPORT)
		59. Shaharasti	79. 1 cluster (BRAC)

		60. Haziganj	80. 1 cluster (BRAC)
Sub Total: Chandpur (3 upazillas)			Total 4 clusters (3 BRAC, 1 NIPORT)
	15. Rangamati	61. Sadar	81. 1 cluster (NIPORT)
		62. Baghaichhari	82. 1 cluster (NIPORT)
		63. Rajasthali	83. 1 cluster (NIPORT)
Sub Total: Rangamati (3 Upazillas)			Total 4 clusters (NIPORT)
	16. Bandarban	64. Ruangchhari	85. 1 cluster (NIPORT)
		65. Lama	86. 1 cluster (NIPORT)
		66. Naikhhonchhari	87. 1 cluster (NIPORT)
Sub Total: Bandarban (3 Upazillas)			Total 3 clusters (NIPORT)
	17. Khagrachari	67. Ramgar	88. 1 cluster (NIPORT)
		68. Matiranga	89. 1 cluster (NIPORT)
		69. Sadar	90. 1 cluster (NIPORT)
Sub Total: Khagrachhari (3 Upazillas)			Total 3 clusters (NIPORT)
Grant Total		69 Upazillas	Total 90 clusters (20 NIPORT, 66 BRAC, 4 GS)