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THE UNITED STATES

A THESIS SUBMITTED TO
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DOCTOR OF PHILOSOPHY
(EDUCATION)

Ph.D.

BY

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**Impact of NGO Intervention on
Psychosocial Development of Children
in Rural Bangladesh**

BY

MUNMUN SALMA CHOWDHURY

Dhaka University Library



***DEPARTMENT OF PSYCHOLOGY
FACULTY OF BIOLOGICAL SCIENCES
UNIVERSITY OF DHAKA
BANGLADESH***

400934

MAY 2003



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A Thesis Submitted to
THE UNIVERSITY OF DHAKA
For the degree of

Doctor of Philosophy
(PSYCHOLOGY)

BY

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**DEPARTMENT OF PSYCHOLOGY
FACULTY OF BIOLOGICAL SCIENCES
UNIVERSITY OF DHAKA
BANGLADESH**

MAY 2003



Dedicated to the memory of
my very especial and beloved
Grandmother

Amirunessa Chowdhury

whose spirit I dearly bear in my heart

400934



Impact of NGO Intervention on Psychosocial Development of Children in Rural Bangladesh

ABSTRACT

The present study was undertaken to investigate the long-term impact of NGO-intervention on psychosocial development of children in rural Bangladesh. The objectives of the study were to find out whether (a) children of NGO-members and non-members differ in psycho-social development; (b) rural boys and girls differ in their psycho-social development; and (c) rural children of the age-groups 12 to 16 years differ in their psycho-social development. The psychosocial variables in the study comprised of self-esteem, achievement motivation, problem-solving abilities and time spent in learning, working and recreation. A total of 300 respondents from age 12 to 16 were selected from seven Districts of four Divisions of Bangladesh. The instruments used to measure the psycho-social variables were: (a) Hare's Self-Esteem Scale; (b) Children's Achievement Motivation Scale; (c) Block Design Test; (d) Picture Completion Test; (e) Activity profile and (f) Health and Knowledge questionnaire. The respondents' personal and household information were also collected. The data were analyzed by different statistical techniques such as Chi-square test, ANOVA and correlation of coefficient.

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The results revealed that the households of NGO-members and non-members differed significantly in three measures. Members of NGOs have more nuclear families (95%) compared to the non-members (84%); Parents (both father and mother) who are NGO members show higher levels of Education and than non-members and the members own more household assets than the non-members. Significant difference was not found between the two groups for other household variables such as, family size, source of drinking water, type of latrine used and kind of treatment taken in illness.

The Three Way Analysis of Variance for the psycho-social variables by respondents' NGO membership of parents, sex and ages have produced the following results:

- a) Children of NGO-members showed significantly better performance in block design test and picture completion test than children of non-members. On the other hand children of NGO-member parents spent more time in working and less time in recreation. Significant difference was not found between the two groups with regard to other psychosocial variables such as, self-esteem, achievement motivation, health and social knowledge and learning hours.

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- b) Boys showed better performance than girls in block design test, health and social knowledge and in the level of achievement motivation. On the other hand girls spent more time in working and less time in recreation than boys. Significant difference between boys and girls was not observed in picture completion test, self-esteem and learning hours.
- c) Older children have more health and social knowledge, and spend more time in learning and working. In other variables of the study, problem solving abilities, self-esteem, achievement motivation and recreation hours, no significant difference was found between the different age-groups.
- d) Significant Interaction Effect was obtained for Sex and Parents' NGO membership in Block Design test; Picture Completion test; Learning hours and Recreation hours. Significant Interaction Effect was also found in Age by Sex in working hours. Significant 3-way interaction was obtained for learning hours, between age and membership status of the respondents parents. No significant interaction effect was found for self-esteem, achievement motivation and health and social knowledge.

The correlation coefficients among the different variables show the following significant relationships:

- Respondents' Age shows a significant positive relation with Health and Social knowledge; Learning hours; and Working hours but a negative correlation with picture completion test.
- Respondents' Fathers Educational level shows a positive correlation with performance in block design test and picture completion test.
- Respondents' Mothers' Educational level shows a positive correlation with performance in block design test; picture completion test; self esteem; health and social knowledge; and learning hours of children.
- Respondents' performance in Block design test shows positive correlation with picture completion test, health and social knowledge, recreation hours. Health and Social knowledge shows a positive correlation with self-esteem.
- Working hours show a negative correlation with recreation hours, learning hours; block design test, picture completion test and achievement motivation.
- Recreation hours show positive significant correlation with block design and achievement motivation.

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ACRONYMS

ASA	:	Association for Social Advancement
BRAC	:	Bangladesh Rural Advancement Committee
BRDB	:	Bangladesh Rural Development Board
CDF	:	Credit Development Forum
CLS	:	Child Labour Survey
CPR	:	Contraceptive Prevalence Rate
CRC	:	Convention on the Rights of Child
CSP	:	Child Survival Programme
DHS	:	Demography Health Therapy
FPAB	:	Family Planning Association of Bangladesh
GVSWO	:	General Voluntary Social Welfare Organization
NGO	:	Non-Government Organization
NIPORT	:	National Institute of Population Research and Training
ORT	:	Oral Rehydration Therapy
PKSF	:	Palli Karma Sahayak Foundation
UNFPA	:	United Nations Family Planning Association
USAID	:	United Nations Aid for International Development
WSC	:	World Summit for Children

CHAPTER – I

INTRODUCTION

INTRODUCTION

1.1 Human Development and Theoretical Perspectives

Development may be most clearly understood as a series of sequential changes in an organism leading to its maturity. Sequential changes unfold the organism's innate dispositions and permit their structural and functional realization. Development includes metabolic changes, structural increments, unfolding of functions, and increase in abilities, achievement and adaptability with the environment as a result of maturity and experience. Development occurs as new kinds and levels of differentiation and integration, learning and maturation emerge. It is a continuous process and is a function of genetic and environmental stimulation. Occurring within a time continuum, this produces changes in both organism and behavior. In broad terms development refers to all the processes of change by which an individual's potentialities unfold and appear as new qualities, abilities, traits and related characteristics. It includes the long-term and relatively irreversible gains from growth, maturation, learning, and achievement. The domain of development encompasses both physiological and psychological growth in an individual. Physiological development corresponds to all bodily changes of an individual from conception to death whereas psychological development corresponds to all behavioral, social and mental changes that occur as a result of maturity and learning.

- G. Stanley Hall (1904) expanded biological evolution into what was to become behavior genetics and formulated a psychological theory of behavioral recapitulation. The human individual passes through developmental stages and phases, which corresponds to the phylogenetic changes from amoeba to civilized human being. Changes in the behavior of the individual occur as a remarkably rapid progress as early individual (ontogenetic) development repeats the long and slow process of species (phylogenetic) development. Hall

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emphasized that "ontogeny recapitulates phylogeny" - individual growth follows the lines of ascending animal evolution. Each stage and phase in the life of a child shows characteristics pertinent to major phylogenetic advances. According to Hall, the infancy period, lasting for about four years, when the child crawls or creeps, s/he is re-enacting the early mammal stage of phylogenesis. In the period of childhood from four to eight or nine years of age, the individual recapitulates the early epoch of prehistoric human kind. During the period of youth, the years from eight to twelve, the child passes through the early history of human - savage and cruel, yet moving toward higher forms of gregariousness and human aspirations. The oncoming pubertal changes introduce adolescence, which brings a 'new birth, for higher and more completely human traits is now born' (Hall 1904). The child invariably re-enacts the experiential history of the human species to the rise of civilization and culture underlying the modern age of humanness. The development thoughts of Hall was a good start to understand how children passes through different stages of development, however as the emphasis moved toward environmental explanations of the origins of behavior, Hall's formulations, which emphasized phylogenetic and biological causes, have become less relevant.

Life-span psychology, as a distinct branch of the behavioral and social sciences, has relatively few historical foundations. Several original theoretical and research orientations that were to influence the development of life-span psychology were formulated in the nineteenth century. Researchers and theorists have taken different views in their investigations and explanation of developmental trends in human behavior. For some, development is a gradual and continuous pattern of growth while others view it as more stage like progression taking striking leap into next higher level of functioning. Some theorists have given more emphasis to the role of genetic factors in development while others considered environmental factors as more important. Such variations in theoretical

explanations contributed to enrich the understanding of human development as they viewed the process from different dimensions and perspectives. Following is a brief presentation of some of the various theories of development which were instrumental and significant in raising critical issues and paved the path to grasp a better understanding of a phenomenon as complex as human development. The theories are presented under five broad categories: (1) Psychoanalytic (focuses on emotion); (2) Learning (emphasizes observable behavior); (3) Cognitive (stresses thought processes); (4) Ethological (focuses on the evolutionary underpinnings of behavior); (5) Contextual (emphasizes the impact of the social and cultural context).

1.1.a. Psychoanalytic perspective

The psychoanalytic perspective is concerned with unconscious forces that motivate human behavior; it seeks to describe qualitative change. This view originated at the beginning of the twentieth century with psychoanalysis approach of Sigmund Freud (1953, 1964) and later expanded and modified by other theorists, including Erik H. Erikson (1950, 1982) and Jean Baker Miller (1991).

(i) Psychosexual Theory of Sigmund Freud

The psychosexual development theory of Sigmund Freud (1940, 1964) stimulated new thoughts about human development, especially with regard to personality development. Freud believed that a kind of psychodynamic force energizes all human behaviors. Each individual has a fixed amount of psychic (or mental) energy that he or she uses to think, to learn, and to perform other mental functions. The child uses psychic energy to satisfy basic biological urges or instincts. The instincts can be divided into two types: the Eros and Thanatos. Eros is life instinct, which helps the child to survive; it directs life-sustaining activities such as respiration, eating, defecating, and the fulfillment of all other

bodily needs. In contrast, the Thanatos is death instincts or destructive forces present in all human beings. Destructive acts such as fistfights; murder, war, etc. are outward expressions of the death instincts. Freud believed that Eros is stronger than Thanatos, thus enabling us to survive rather than self-destruct. According to the psychosexual theory, the psychic energy that serves the instincts is eventually divided among three components of personality - the Id, Ego and Superego.

The major function of Id is to serve the instincts by seeking objects, which will satisfy them. It follows the pleasure principle by seeking immediate gratification for instinctual needs. Id is irrational and impulsive. At birth the personality of all child is Id. The Ego emerges when psychic energy is diverted from the Id to energize important cognitive processes such as perception, learning, and logical reasoning. The goal of the rational ego is to serve the reality principle - to find realistic ways of gratifying the instincts. At the same time, the ego must invest some of its available psychic energy to block the Id's irrational thinking. The Superego is the person's moral arbiter. It develops from the ego, represents the ideal, and strives for perfection rather than for pleasure or reality. As the child internalizes parental moral standards he or she also adopts these guidelines as his/her own. These internalized codes of conduct form the child's Superego.

Freud believed that personality is formed in the first few years of life, as children deal with conflicts between their inborn biological, sexually related urges and the requirements of society. He proposed that these conflicts occur in an unvarying, maturation-based sequence of stages of psychosexual development, in which pleasure shifts from one body zone to another - from the mouth to the anus and then to the genitals. At each stage, the behavior, that is the chief source of gratification, changes - from feeding to elimination and eventually to sexual activity.

Of the five stages of personality development described by Freud, he considered the first three- oral, anal and phallic, stages to be most crucial. He suggested that if children receive too little or too much gratification in any of these stages, they are at risk of fixation - an arrest in development - and may need help to move beyond that stage. He believed that evidence of childhood fixation shows up in adult personality. A key event in psychosexual development occurs during the phallic stage of early childhood, when the site of pleasure shifts to the genitals. Boys develop sexual attachment to their mothers and girls to their fathers, and they regard the same-sex parent as rival. Eventually children resolve their anxiety by identifying with the same sex parent and move into the relatively calm, latency stage of middle childhood. They become socialized, develop skills, and learn about themselves and society. The genital stage, the final one, lasts throughout adulthood. The physical changes of puberty reawaken the libido, the energy that fuels the sex drive. The sexual urges of the phallic stage, repressed during latency, now resurface to flow in socially approved channels, which Freud defined as heterosexual relations with persons outside the family.

Although the psychosexual development theory of Freud was widely criticized it also received a great deal of attention as it explained a wide range of human behavior which were not even considered earlier. Perhaps Freud's most important contribution was his concept of unconscious motivation, the idea that much of our behavior is caused by forces or repressed conflicts of which we are not consciously aware.

(ii) **Psychosocial Theory of Erik Erikson**

Erik Erikson (1953) embraces the concepts of libido and Thanatos but sees them in a different light. In Erikson system libidinal energy is a force that directs the human system's epigenetic development and constitutes its all-inclusive motivating diversity of drives, urges, and desires. Libido generates the "drive to live, to gratify oneself, and to reach out beyond oneself." A polarity emerges

through the functions of Thanatos, generating urges to regress and destroy or escape. Since bisexuality is inherent in the organism, masculinity and femininity form another basis for polarization and conflict in each individual life. In *Childhood and Society* (1953), Erikson points out: 1) side by side with the stages of psychosexual growth as interpreted by Freud there are psychosocial stages of ego development; 2) personality growth continues throughout the whole life cycle; and 3) each stage has a positive as well as a negative component.

Erikson divides the total life span into eight stages and assigns each stage a core conflict. Infancy and childhood span the first four core conflicts: 1) trust versus mistrust, 2) autonomy versus doubt and shame, 3) initiative versus guilt, 4) industry versus inferiority. The adolescent period is marked by identity versus role diffusion. The core conflicts of adulthood include 1) intimacy versus isolation; 2) generativity versus self-absorption; and 3) integrity versus despair. In each stage a new dimension of social interaction becomes possible. Each stage has its own distinctive goal to be attained in that period. Each stage involves a crisis in personality, a major issue that is particularly important at that time and will remain an issue to some degree throughout life. The crises emerge according to a maturational timetable and must be satisfactorily resolved for healthy ego development. Erikson was chiefly concerned with ego development, for he sees attainment of ego identity as a key developmental task of puberty and adolescence and a sound foundation for adulthood. A healthy ego identity is acquired only as the child receives consistent and warm recognition of accomplishments that are meaningful in his or her culture. The underlying developmental conflict is universal, but the particular situation becomes culturally defined. As the core conflict of each stage is resolved positively, a new quality is incorporated into the ego, raising its adequacy and strength. On the other hand, specific damages to ego results if a core conflict is negatively resolved.

iii) Relational Theory of Jean B. Miller

The Relational theory of Miller (1991) views personality growth as a function to relationships with others. The concept of self begins in dynamic interaction with another. The infant identifies with the first caregiver, not because of who that person is but because of what the person does. The baby responds to other people's emotions, becomes comfortable when others are comfortable, and acts to build closer relationships. During Toddler-hood and early childhood, rather than striving for autonomy and individuation, both boys and girls continue to place the highest importance on intimate connections. However, a split between male and female development occurs during the school years, when girls' interest in relationships, family, and emotional issues is encouraged, while boys are steered toward competition and personal achievement. This dichotomy widens during adolescence and adulthood, to the detriment of both men and women. Women's growth with relationships is devalued, and men's deficiencies in participating in growth-fostering relationships are not addressed early enough.

1.1.b. Learning perspective

The learning perspective in explaining human development is concerned, not with unconscious forces, but with behavior that can be observed and studied objectively and scientifically. Learning theorists maintain that development results from learning, a long lasting change in behavior that occurs as a result of experience or adaptation to the environment. Learning theorists see development as continuous (rather than occurring in stages) and emphasize quantitative development (changes in amount rather than kind). Two important learning theories, behaviorism and social-learning (or social-cognitive) theory, have contributed significantly to understand human development on the basis of learning.

i) **Behaviorism**

Behaviorism describes observed behavior as a predictable response to experience. Although biology sets limits on what people do, behaviorists view the environment as much more influential. They hold that human beings at all ages learn about the world the same way other animals do: by reacting to stimuli, conditions, or aspects of their environment (external and internal), that they find pleasing, painful, or threatening. Thus behaviorists look for events that determine whether or not a particular behavior will be repeated. Behavioral research deals with two kinds of learning: classical conditioning and operant conditioning.

The principles of classical conditioning were developed by the Russian physiologist Ivan Pavlov (1905). Classical conditioning is a kind of learning in which a person or animal learns a response to a stimulus that did not originally evoke it, after the stimulus is repeatedly associated with a stimulus that actually elicit the response.

In operant conditioning the individual learns from the consequences of some action on the environment. American psychologist, B.F. Skinner (1983) formulated the principles of operant conditioning. He found that an organism, human or animal, would tend to repeat a response that has been reinforced and will suppress a response that has been punished. Reinforcement is a consequence of behavior that increases the likelihood that the behavior will be repeated. On the other hand punishment is a consequence of behavior that decreases the likelihood of repetition. Whether a consequent is reinforcing or punishing depends on the person.

According to learning theory, the principles of learning can be applied to modify behavior and shape behavior by eliminating the unwanted behavior or to instill positive behavior.

ii) **Social Learning (Social-Cognitive) theory**

Social learning theory, an outgrowth of behaviourism, maintains that children, in particular, learn social behaviours by observing and imitating models (usually their parents and role models). Albert Bandura (1925) developed many of the principles of modern social-learning theory, also known as social-cognitive theory, which today is more influential than behaviourism. Social-learning theory acknowledges the importance of cognition. It maintains that children's cognitive response to their perceptions, rather than reflexive response to reinforcement or punishment, is central to development.

Of particular importance in social-learning theory is observation and imitation of models. Children acquire new abilities through observational learning - by watching others. They demonstrate their learning by imitating the model, sometimes when the model is no longer present. However, learning can occur even if the child does not imitate the observed behavior. According to social learning theory, imitation of models is the most important element in the way children learn a language, deal with aggression, develop a moral sense, and learn gender specific behaviors.

Children actively advance their own social learning by choosing the models they imitate. The choice is influenced by characteristics of the model, the child, and the environment. A child usually choose a person(s) s/he admires and tend to imitate people of high status and people whose personalities are similar to their own. The specific behavior children imitate depends on what they perceive as valued in their culture. While observing models, chunks of behavior is learned and are mentally put together into new, complex behavior patterns. Social-learning theory serves as a bridge between behaviorism and the cognitive perspective by acknowledging cognitive influences on behavior and the active role people play in their own learning.

1.1.c. Cognitive perspective

The cognitive perspective is concerned with qualitative changes in thought processes and the behavior that relates these changes. It views people as active, growing beings with their own internal impulses and patterns of development. It sees every normal person, from infancy onwards, as a doer who actively constructs his or her world.

i) Cognitive-Stage theory of Jean Piaget

Piaget (1967, 1973) was the forerunner of today's 'cognitive revolution' with an emphasis on internal mental processes, as opposed to classical learning theory's concern with external influences and overt behaviors. Piaget believed that the core of intelligent behavior is an inborn ability to adapt to the environment. Building on their sensory, motor, and reflex capacities, young children learn about and act upon their surroundings. Piaget (1967) described cognitive development as occurring in a series of stages: 1) Sensory-motor; 2) Preoperational; 3) Concrete operational; and 4) Formal Operations. At every stage a child develops a new way of thinking about and responding to the environment. Thus, each stage constitutes a qualitative change from one type thought and behavior to another. Each stage builds on the one before and lays the foundation for the next stage. These stages and their order are universal though the timing (age limits) may vary.

According to Piaget, cognitive growth occurs through three interrelated principles: organization, adaptation, and equilibration. These principles operate at all stages of development and affect all interactions with the environment. Cognitive organization is a tendency to create increasingly complex systems of knowledge. From infancy people organize what they know into mental representations of reality that help them make sense of their world. Within these representations lie cognitive structures called schemes: organized patterns of behavior that a person uses to think about and act in a situation. An infant has

simple schemes for sucking, looking, and so forth. From the first days of life, infants begin to combine schemes. As children acquire more information, their schemes become more and more complex, progressing from ways to perform motor actions to concrete thinking about sensory perceptions, and eventually to abstract thought.

Adaptation in Piaget's term for the way a person deals with new information. Adaptation involves two steps: a) Assimilation, taking in information and incorporating it into existing cognitive structures, or ways of thinking, and b) Accommodation, changing one's ideas, or cognitive structures, to include the new knowledge. Assimilation and Accommodation work together to produce cognitive growth. Equilibration is a constant striving for equilibrium - a state of balance between a child and the outside world and among the child's own cognitive structures. The need for equilibrium leads a child to shift from assimilation to accommodation.

ii) **Information Processing Approach**

The newer information-processing approach analyzes the mental processes underlying intelligent behavior: perception, attention, memory, and problem solving. Scientists who pursue this approach study how people acquire, transform, and use sensory information through active manipulation of symbols, or mental images. Like Piaget, information-processing theorists see people as active thinkers about their world; but, unlike Piaget, they do not propose stages of development.

Neo-Piagetian developmental psychologists have extended and modified Piaget's theory by integrating it with the information-processing approach. Robbie Case (1985, 1992), a prominent neo-Piagetian, maintains that children develop cognitively by becoming more efficient at processing information (rather than through equilibration). One way to do this is through practice. According to Case, there is limit to the number of schemes a child can keep in mind. A child

who practices a skill, such as counting or reading, become able to do it faster, more proficiently, almost automatically, freeing some mental 'space' for additional information and more complex problem solving. Maturation of the child's neurological processes also expands available memory capacity.

The neo-Piagetian approach, and Case's model in particular, is a promising attempt to explain the processes by which qualitative changes in cognition occur and the constraints on learning at any given stage. Because of its emphasis on efficiency of processing, it helps account for individual differences in cognitive ability. The theory is still being developed and is in need of more supporting research.

1.1.d. Ethological perspective

The ethological perspective focuses on biological and evolutionary bases of behavior. The scientific discipline of ethology, developed by two European zoologists Konrad Lorenz (1957), studies the behavior of species of animals in their natural surroundings or in the laboratory. Ethologists rely mostly on naturalistic observation. They believe that, for each species, a variety of innate, species-specific behaviours have evolved to increase its odds of survival. British Psychologist John Bowlby extended ethological principles to human development.

i) Imprinting and Attachment

Imprinting is the result of a predisposition toward learning: the readiness of an organism's nervous system to acquire certain information during a brief critical (or sensitive) period in early life. Among animals some ritual behavior occurs right after birth which enables offspring and their mothers to know each other. If for some reason these rituals are disrupted or interrupted, mother and offspring will not recognize one another. The results for the young animal, if

not otherwise cared for, can be devastating: physical withering and death or abnormal development.

Bowlby (1951) was convinced of the importance of mother-baby bond and warned against separating mother and baby without providing good substitute care giving. His conviction arose partly from examining ethological studies of bonding in animals and partly from seeing disturbed children in a psychoanalytic clinic in London. Mary Ainsworth (1969) studied mother-child attachment among American and African children. Research on attachment is based on the belief that infant and parent are biologically predisposed to becoming attached to each other and that such attachment is important for the baby's survival.

The ethological perspective challenges us to look beyond the immediate adaptive value of a behavior for an individual to its function in promoting the survival of the species. So far, this approach has been applied chiefly to a few specific developmental issues, such as attachment between infant and caregiver and interaction between peers, but has had little to say about other aspects of human development, such as language and abstract thought.

1.1.e. Contextual perspective

Contextual theorists stress on the social context to understand human development. The individual is not a separate entity interacting with the environment but an inseparable part of it. The developing person acts upon and changes the environment, as the constantly shifting environment acts upon and changes the person. Contextualists emphasize individual differences. Individuals set goals within a particular context as they perceive it and then select new goals within the new context which they seek out or which then presents itself. Success depends on how appropriate behavior is to its context.

(i) Vygotsky's Sociocultural theory

Vygotsky's (1978) socio-cultural theory is concerned mainly with higher mental activities and has important implications for education and cognitive testing. Its focus is the active, goal-setting child in a social-historical-cultural context. Its emphasis is on how social interaction with adults can fulfill a child's potential for learning. According to Vygotsky, adults must direct and organize a child's learning before a child can master and internalize it. Vygotsky's best-known concept is the zone of proximal development (ZPD). Children in the zone of proximal development for a particular task can almost, but not quite, perform the task on their own. With the right kind of teaching, however, they can accomplish it successfully. A good teacher identifies a child's ZPD and helps the child stretch beyond it. Then the adult gradually withdraws support until the child can perform the task unaided. This temporary support of adult is termed as scaffolding. Researchers have applied the metaphor scaffolds to way of teaching.

The contextual perspective suggests that the development of children from one culture or one group within a culture may not be an appropriate norm for children from other societies or cultural groups. Emphasizing on context and potentialities to understand an individuals, such perspective can benefit children by obtaining proper guidance, however this theory pays little attention to other developmental issues such as role of maturation and biological influences.

From the discussion of the above theories it is evident that child or human development is a complicated, multi-dimensional issue having no final word of conclusion. The different theories have put forward thoughts contributing to enhance knowledge on human development and promote further research to engrain more knowledge on the intriguing subject.

1.2 Psychosocial Development of Children

The term development means a progressive series of changes that occur as a result of maturation and experience. Developmental changes involve a complex process of integrating many structures and functions. The goal of developmental changes is to enable a person to adapt to the environment in which s/he lives. Changes are constantly taking place in physical and psychological capacities. While physical changes are more visible and easier to measure, psychological and social changes are rather complex, may not be directly observed and sometimes very difficult to assess. The factors determining psychological growth and development are complex and often direct relationship is difficult to find. Nevertheless researchers have discovered many of the causal and influencing factors that are responsible for promoting or hindering psychological and social development of an individual. For the present research purpose the term psychosocial development is defined as development of those capacities of an individual which are psychological and / or social in nature. Broadly these can be viewed as the development in cognition, emotion, self-concept, language, sociability, personality, etc. which are all reflected in the behavior of the individual. As the area of psychosocial development is very wide, the present study has narrowed down the variables to concentrate study only on a few variables namely, problem solving abilities, self-esteem, achievement motivation and knowledge about some health and social issues. The rationale in selecting these factors was that these factors are very closely associated in achieving the goal of development changes, that is adaptability in the environment in an effective manner. Measures in these variables can indicate the capacity of rural children in making effective adjustment and adaptation in life.

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1.3 Literature Review

1.3.a. Cognitive Development

One of the most active research areas of child development focuses on cognition - those thought processes and mental activities including attention, memory, concept formation and problem solving, evident from early infancy onward. Virtually every aspect of a child's development, in fact, has some connection to emerging cognitive capabilities, e.g. child's use of language is linked to her growing conceptual development. Once she understands concepts such as 'animal' or 'flower' she can apply the labels to members of these classes. Similarly, the child's growing knowledge of effective social interaction can influence the quality of her relations with peers. In the domain of emotional development, the infant's fear of separation from the caregiver follows from the realization that people continue to exist even when they are no longer within sight - another cognitive advance. These are just a few of the numerous examples of how changes in thinking influence and interact with other areas of the child's cognitive development.

One of the most powerful and uniquely human cognitive skills is the ability to solve problems. Whether one is completing an analogy, computing an arithmetic solution, or testing a scientific hypothesis, problem solving typically involves several steps or phases. Often it starts with planning the steps to the solution of the problem, considering both the information one has at the start and the final goal. Besides it is necessary to attend to the portions of the problem that are relevant to its solution. While solving a problem a person may select and use a number of strategies to achieve the goal. In many cases we rely on our understanding of what different symbols in the problem represent. Frequently information is known from memory and relationships among several pieces of that information are examined. Once a solution is reached it is applied to similar contexts. Considering the number of steps involved and the complex,

intertwined relationships among them, problem solving is often regarded as an example of what is called "higher order thinking." However, recent evidence suggests that even infants are capable of solving problems, combining several sub-goals in order to reach a desired goal (Willatts and Rosie, 1989).

Problem solving skills become more elaborate and complex as children pass through the preschool and school years. A major question has been whether the child's increasing proficiency in solving complex and abstract problems result from an abrupt, qualitative shift in the ability to think logically, or whether improvements in problem solving occur because of gradual gains in memory, attention, and in other components of cognitive skills. According to Piaget's theory (1967), abrupt qualitative shifts take place in problem solving ability with maturity. He felt that the cognitive structures that permit completely logical and abstract thought do not evolve until adolescence when children reach the stage of formal operations. In contrast, many information-processing theorists have emphasized the continuous growth and refinement of component skills involved in problem solving. According to them, children of all ages possess the fundamental ability to manipulate information in a logical fashion but may forget some of those elements during the process of problem solution or not attend to them sufficiently in the first place. With age, however, improvements in children's attention, memory, or other cognitive skills result in corresponding improvements in problem solving. Thus to have a good understanding of problem solving it is important to know about the essential components involved in the process of problem solving. As researchers have explored children's problem solving ability, they have discovered developmental changes in important components that characterize higher order thinking.

1. *Representation*: One of the most basic capacities required for problem solving is the ability to use symbols - images, words, numbers, pictures, maps or other configurations that represent real objects in the world.

Representational capacities are seen even in very young infants but it becomes well refined and sophisticated, as the child grows older.

2. *Planning*: One of the hallmarks of a mature problem solver is the ability to plan an approach to obtaining a goal. Planning, of course, depends on representational capacities since symbols may be employed or manipulated as part of the plan. Planning has at least two aspects: first deciding on the steps one needs to take ahead of time, and second, knowing when to be flexible and perhaps modify or discard advance plans if the situation calls for it.
3. *Strategy Choice*: Children use more than one strategy in solving problems. Having multiple strategies affords the child useful flexibility as she encounters new situations and gains new knowledge. With development, as children have more successes with solving problems and become more confident about their approach, they are more likely to use memory as opposed to finger-counting to solve addition problems. They also learn new strategies, often when they fail to solve a problem and need to search for alternative solutions. But they also learn from their successes. As children become more mature problem solver in trying out new strategies they do not merely substitute one for another, rather they incorporate new blends of strategies, as new ones are learned and older ones discarded.
4. *Transferring Skills*: One essential element in higher-order thinking is the ability to use what is learned in one situation and apply it to other similar problems. It has been found that the ability to transfer knowledge requires children to have learned the original problem well, to note the resemblance between the old and new problems, and to apply the appropriate activities to the new problem. This process is called analogical transfer in that the child must notice the one-to-one correspondence that exists between the elements of one problem and another, and then must apply the familiar skills to the novel context. The ability to transfer skill becomes more well defined as children

acquire the skill to find similarities and differences between situations and know the appropriateness of the strategies to be applied.

5. *Formal Reasoning*: Problem solving often involves formal reasoning tasks. Among the typical formal reasoning tasks studied by psychologists are analogies, class inclusion and transitive inference. These tasks share the common requirement that the child consider relations among objects in order to draw a logical conclusion, and as such, allow us to understand more about the child's awareness of logical relationship.

In analogical tasks the individual is required to detect a similarity between one set of relations and another. Children show analogical ability when they understand the underlying relationships. Older children are usually faster in detecting the relationships and thus in the use of analogies. Class inclusion is another task which shows improvement with development of a child. However class inclusion problem tasks are sometimes distorted due to phrasing of words or language. Preschoolers were found to have done the same class inclusion tasks correctly and incorrectly when different phrases were used (Markman, 1989). In transitive inference the child must decide on the relationship between two objects based on their relationships to other objects. For transitive inference children should be able to draw from their memory the appropriate approach to solve a problem. Some researchers maintain that adolescents are indeed better formal reasoners than younger children because they begin to understand more about the nature and requirements of logical reasoning. That is, they can think about what is necessary for thinking. Thus noticeable improvements in the ability to engage in formal reasoning seem to be strongly related to the growth in understanding about the nature of logic (Byrnes & Overton, 1988; Goswami, 1991; Moshman, 1990).

From the growing body of research on children's problem-solving skills it may be said that young children are far more competent in formal reasoning and other kinds of problem-solving tasks than Piaget surmised. It is not necessary to wait until adolescence to observe logical reasoning in children since under the right circumstances, preschoolers can solve analogies, class inclusion problems, and transitive inferences. Children do improve in their ability to solve formal reasoning and other types of problems, but their improvements seem to be less tied to abrupt shifts in cognitive abilities than smooth, continuous increments in several component cognitive processes. With age, children's broader knowledge base, improved memory, more efficient processing, and greater attention to the relevant pieces of the problem all contribute to better performance. Children also become more adept at using representations, planning, experimenting with different strategies, and transferring solutions as they attempt to solve various kinds of problems. In other words, not only do children show improvements in the component cognitive skills required for problem solving, but they also become more adept at directing and managing their own cognitive activity.

Key
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Influence of Culture on Cognitive Development

The prominent Soviet psychologist, Vygotsky (1978) wrote that the child's cognitive growth must be understood in the context of the culture in which s/he lives. Vygotsky believed that adults cultivate in children the particular skills and abilities valued by their cultural group and that the regulation and guidance of the child's behavior by others is gradually replaced by internalized self-regulation. As adults engage in interactions with children, they provide the scaffolding, or framework, for the child's subsequent attainments, especially when those experiences are just one step ahead of what the child already knows within the zone of proximal development.

Both Piaget and the information-processing theorists assume that cognitive processes function in similar ways across cultures, that there are universal qualities to the nature of thinking. But researchers who have studied memory, classification, and other cognitive skills among children from diverse cultures have shown that although children's thinking from culture to culture may show common features, there are notable differences as well.

Study with Kpelle tribe of Liberia (Cole et.al, 1971) showed that there is no difference among adult and children in recalling long list of words, those which can be categorized and those which are unrelated. Only subjects who had some experience in school tended to cluster and recall more words than their non-literate counterparts. On the other hand the same experiment with American children showed both adults and children recall words which can be categorized better than words which are unrelated. Although formal instruction in school is an important variable in cognitive development in children, it has also been found that children who had not been to school may perform as well as those who had been to school. Barbara Rogoff and Kathryn Waddell (1982) compared Mayan children living in rural Guatemala with American children on a memory test that required the reconstruction of an organized spatial scene. The children from these two cultural groups showed no differences in performance on the task involved.

Studies such as this suggest that it is important to consider the activities that are valued and common within a culture in trying to explain the emergence of cognitive skills. Some cultures may provide children with more experience in grouping objects together on the basis of function, for example. In other cultures, in which many children attend school, other modes of classification may be directly taught. Some cultures value literacy, whereas others value trade skills, such as weaving or making pottery. Thus, children ultimately show different cognitive attainments depending on the skills and abilities that

are promoted in the context in which they grow up. Although the cognitive end products may differ, however, the process through which children learn to think in culturally specific ways may be universal. Many developmental psychologists now agree with Vygotsky that at least one critical process is the way adults convey particular cognitive skills as they engage in cognitive activities and problem-solving tasks with children.

Parental interaction with children plays a vital role in cognitive development of children. Studies show that direct instruction by parents or working with them foster problem solving abilities of children to a considerable degree. Barbara Radziszewska and Barbara Rogoff (1988) examined how nine and ten year olds children learned to plan errands. One group of children worked with their parents to organize a shopping trip through an imaginary town, while a second group of children worked with a peer to plan the same. In the second part of the experiment, all the children were observed as they planned a new errand in the same town, this time by themselves. Children who had initially worked with their parents employed more efficient planning strategies than children who had worked with peers.

1.3.b Self-Concept

Self-concept consists of that unique set of traits, characteristics, abilities, etc. that identify an individual as observed by that individual, not by someone else. An individual's self-concept includes an understanding of his or her physical qualities, possessions and status, skills, and psychological characteristics, including personality, beliefs, and value systems. The awareness starts with person's basic capacity to identify her or his own face and body. Differentiating self from others in terms of physical appearance takes place as early as eighteen months of age. Among preschoolers, self is usually organized around category membership, but children these young also have some understanding of human

capacities (Harter, 1993). The self-concepts of older children increasingly reflect a consideration of others and involve active comparison. The process eventually gives way during the adolescent years to more formalized autonomous standards for judging self, especially in areas in which the young person feels competent. Of course, social and cultural conditions may have enormous effect on this progression

A very crucial component of self-concept is self-esteem, or self-worth, which is a positive feeling of merit and the extent to which the child believes his, or her attributes and actions are good, desired, and valued. This component of self appears to be related to social affiliations, success in school, and overall mental health. For example, later life satisfaction and happiness have been linked to high self-esteem; on the other hand, depression, anxiety, and poor adjustment in schools and social relationships have been linked to low self-esteem (Harter, 1985, 1990, 1993).

William James (1892) theorized that self-esteem depends on the success a person feels in areas in which that person wants to be successful. Others emphasize that self-esteem originates in how a person thinks others see him or her; the generalized other - the combined evaluations of parents, peers, and teachers influential in a person's life - helps to determine his/her sense of worth (Cooley, 1902; Mead, 1934).

To determine whether both the importance of being successful in a highly regarded domain and the perceived evaluations of others affect self-esteem, Harter (1987) obtained ratings of how children viewed themselves in scholastic competence, athletic competence, social acceptance, physical appearance, and behavioral conduct and in terms of global success. Harter further asked children how critical it was for them to do well in each of these domains. Harter reasoned that greater discrepancies between perceived competence and the importance of a domain, especially those highly valued are linked to lower self-

esteem. Children additionally rated how others (parents, peers) viewed them, felt they were important, liked them, and so on. Elementary school children were divided into three groups based on these two measures. Those with highest self-esteem reported high social support and a low discrepancy between perceived and desired competence. Those with lowest self-esteem reported low social support and a high discrepancy between perceived and desired competence. The findings suggest that parents, teachers and others concerned with increasing self-esteem need to consider the kind of social encouragement and positive regard they provide and children's own feelings about what they believe is important.

Developmental Changes in Self-Esteem

In general, the self-esteem of children in early elementary school is high. Yet as they approach adolescence, self-esteem for a substantial portion, especially girls, decline (Block & Robins, 1993; Simmons & Blyth, 1987; Wigfield et al., 1991). The change accompanies major transitions, such as the onset of puberty, entry to junior high school, and substantial realignments in friendship patterns. Often the decline accompanies a lowering of perceived competence in academic subjects such as mathematics. However, if girls retain a warm strong orientation toward others, they are more likely to maintain high self-esteem throughout these transitions. Perhaps the association should not be surprising, given that warm responsive parenting is linked to high self-esteem in young people in the first place (Bishop & Ingersoll, 1989). And coping strategies that lead young people to attribute success to their competence and mastery is certainly another critical element in maintaining high self-esteem (Brooks, 1992).

1.3.c. Achievement Motivation

Two basic aims of socializations are to urge children to pursue important goals and to take pride in their accomplishments. In many societies children are encouraged to be independent and competitive and to do well at whatever they may attempt - in short, to become 'achievers'. Although the meaning achievers vary from culture to culture, a survey of 30 cultures reveals that people from all over the world value personal attributes such as self-reliance, responsibility, and a willingness to work hard to attain important objectives (Fyans, Salili, Machr, & Desai, 1983). Psychoanalysts stress on the view that human infants are curious, active explorers who are constantly striving to understand and to exert some control over the world around them. But even though the basic propensity for competence and achievement may be innate, it is obvious that some children try harder than others to master their school assignments, their music lessons, or the positions they play in the football team. This individual difference to strive harder to achieve calls for an explanation and several studies were conducted on the issue.

When developmental psychologists talk about an 'independent' person, they mean an individual who is able to accomplish many goals without assistance. The concept of achievement motivation is more complex. David McClelland and his associates (McClelland, Atkinson, Clark, & Lowell, 1953) define the need for achievement (*n Ach*) as a learned motive to compete and to strive for success whenever one's behaviour can be evaluated against a standard of excellence. In other words, high need-achievers have learned to take pride in their ability to meet or exceed high standards, and it is this sense of self-fulfillment that motivates them to work hard, to be successful, and to out-perform others when faced with new challenges. Susan Harter (1981) has argued that children may attempt to achieve for either of two reasons: 1) to satisfy their own needs for competence or mastery, this is known as intrinsic orientation or

2) to earn external incentives such as grades, prizes, or approval, known as extrinsic orientation. Harter measures achievement orientation with a 30-item questionnaire that asks children to indicate whether the reasons they perform various activities are intrinsic (I like challenging tasks; I like to solve problems myself) or extrinsic (I do things to get good grades; to win the teacher's approval). Preliminary research with this Harter's measure indicates that children who are intrinsically oriented to achieve are more likely than those who are extrinsically oriented, prefer challenging problems over simpler ones and to view themselves as highly competent at schoolwork and other cognitive activities.

Development of achievement motivation

Achievement motivation in children can be observed from as early as 6-months old. Infants differ in their willingness to explore the environment and their attempts to control objects, situations, and the actions of other people (Yarrow et al., 1983). Gradually with increasing age the achieving behavior expands and becomes more evident in school performance and academic achievement. At a younger age achievement seeking behavior is closely linked with the maturity level of the child but as the child grows older s/he takes a more social expectancies and experiences. Studies in this area have identified factors which are closely associated with fostering of achievement among children, such as, individual expectancies and locus of control, parental influences and home environment.

Expectations of success or failure are a powerful determinant of achievement behavior: children who expect to achieve usually do, whereas those who expect to fail may spend little time and effort pursuing goals that they believe to be "out of reach." This is very much evident in sex difference of academic performance. In elementary schools girls perform equally well as boys and sometimes better. But despite their early accomplishments, girls often

underestimate their capacity for academic achievement, while boys consistently overestimate their academic capabilities and eventually boys outperform girls in high schools and colleges (Crandall, 1969). Children's expectations of achieving success will also depend on the extent to which they believe that their behavior determines their outcomes. Some children, called internalizers, assume that they are personally responsible for their successes and failures. For example if they do well in examinations they would attribute their hard work at study for the good result rather than the test being too easy. Other children, known as externalizers, believe that their successes and failures depend more on luck, fate, or on the actions of others than on their own abilities or efforts. Virginia Crandall and her associates believe that an internal locus of control (internality) is conducive to achievement: children must necessarily assume that their efforts will lead to positive outcomes if they are to strive for success and become high achievers. Externalizers are not expected to strive for success or to become high achievers, because they assume that their efforts are generally irrelevant to their outcomes.

Parental and Home environment Influence on Achievement Motivation

Child's expectation and locus of control depends much on the parental influence and the environment in which the child is reared up. Study findings show that a secure emotional bond to a primary caregiver may be an important contributor to achievement motivation. For example, infants who are securely attached to their mothers at 12 - 15 months of age are more likely, than those who are insecurely attached, to explore a strange environment. They also display a strong sense of curiosity, self-reliance and eagerness to solve problems some four years later in kindergarten (Matas, Arend, & Sroufe, 1978; Arend, Gove, & Sroufe, 1979). In another study (Van Doorninck, Caldwell Wright, & Frankenberg, 1981), it was found that quality of the home environment at 12 months of age

predicted children's academic achievement several years later. It appears that parents who encourage self reliance while setting clear performance standards for their children to live up to are likely to raise internalizers (Buriel, 1981; MacDonald, 1971). In contrast, protective parents who set few performance standards and allow little autonomy or freedom of expression are likely to raise youngsters who score higher in externality (Davis & Phares, 1969; Wichern & Nowicki, 1976). Perhaps there is a simple explanation for these findings. If children are often protected by parents who solve their problems for them and set few standards for them to live up to, they become dependent regarding their acceptable performance and assume that parents or other adults will judge for them. By contrast, parents who stress self-reliance and set clear performance standards are creating a predictable world for their children - one that will enable them to determine whether their own efforts to achieve important goals have been successful or unsuccessful. Parental reactions to a child's successes and failures may also influence the child's locus of control. Children who take credit for their accomplishments and score high in internality tend to have parents who frequently reward successes and do not criticize occasional failure (Katzovsky, Crandall, & Good, 1967). By contrast, youngsters who deny personal responsibility for their outcomes and score high in externality often have parents who are neutral toward successes and who punish failures. So it seems that adults who react in a generally positive manner to a child's accomplishments are probably fostering the development of an internal orientation. On the other hand, those who accentuate the negative by punishing failures may be encouraging their children to defend themselves against the threat of punishment by adopting an external locus of control. Researchers have also attributed parental influence to be the cause of sex difference in achievement expectancies. It seems that parents often expect more in the way of academic achievement from adolescent sons than from adolescent daughters

(Parsons, Ruble, Hodges, & Small, 1976). Parents' sex-stereotyped beliefs about their children's academic potential may be an important determinant of the sex differences found in children's academic self-concepts. Thus parents play a very significant role regarding achievement motivation in their children, which eventually leads to child's performance on various abilities.

1.4 Research in Child Development in Bangladesh

The Convention on the Rights of the Child states that a child has a right to develop to "the maximum extent possible" (article 6). It also includes the "right of every child to a standard of living adequate for the child's physical, mental, spiritual, moral and social development" (article 27) and the right of every child to education, with a view to achieving this right progressively and on the basis of equal opportunity." (Article 28). Bangladesh had given but little attention to child rights and development issues before the World Summit for Children in 1990 when the Convention on the Rights of the Child (CRC) was launched. However research with special focus in the area of child development received less attention than of other areas such as child rights, child labour, abuse and violence against children. There has been no national survey or study to find out the psychological dimension of children's growth in the country. No systematic study has been undertaken to search for the pattern followed in social, emotional, cognitive and behavioral development of rural and urban children, male- female, rich and the poor, literate and illiterate. National data on children's IQ, emotional stability, adaptability, achievement motivation, self-esteem are not available. Although there have been some studies on these constructs but those are few in number and in isolated form with small number of sample where findings cannot be generalized for the population. With an aim to analyze the development rights of children an assessment was conducted by the Ministry of Women and Children's Affairs and UNICEF (Situation assessment and analysis

of children and women in Bangladesh, 2002) and have articulated some key elements and trends in relation to these rights. A summary of the findings of this assessment on child development is presented below:

a. ***Knowledge about child development:***

A 1998 survey (UNICEF) carried out in both rural and urban areas and in all six divisions of Bangladesh found that general awareness of the full range of needs of children for their proper development was generally low, with only one out of four women and men considering attention and care from parents as necessary for good mental/cognitive development of children under two, compared to 73% of men and 69% women knowing that nutritious food is important. But knowledge on what constitutes good nutrition was limited: only 2% of men and 3% of women knew that iodine is important for cognitive development, slightly more (13% of men and 16% of women) knew the benefits of breast milk.

On the other hand, in certain areas, knowledge and values were firmly established: 91% of women and 86% of men knew that play is important for a child's development, and 95% of both women and men believed that physical punishment is bad for a child's development. Women in general were aware that physical punishment is bad for children, but most did not know the harm that physical punishment can cause to children.

Compared to 24% of rural women, 33% of urban women knew that for their proper mental development children need affection and attention from their parents. Similarly, 45% of urban women versus 25% of rural women were aware that parents should take part in their children's play and that they should encourage children to try new things in their play (26% versus 17%).

1.4.b. Child care practices in Bangladesh

Cognitive Development:

A study of Save the Children USA by Monir (1994) in rural child care practices in Bangladesh found that close to two out of three mothers were making efforts to have contact with and interact with their children and initiate learning by the age of six months; one out of three emphasize on physical contact. An overwhelming 92% of mothers said that they had tried to make the child smile in various ways. Almost all mothers babbled with their child. Close to half of the mothers interviewed said that most children start to babble at three to six months of age, and close to half again said that this helps the child to learn how to make similar sounds.

However, children are not always encouraged to speak and talk in front of elder members of the household, and mothers prefer children to remain quiet when they are working, upset or tired. Yet three out of four mothers like to have a conversation with a child when she is at leisure, and two thirds saw children's asking questions as one of the ways for a child to learn.

By the ages of one to two years, two-thirds of children were taught to identify people, and half could identify objects by their names. It was found that most caregivers teach children to identify people and objects by pointing to a person or an object, drawing the attention of the child, and telling the child who or what it is. But when mothers were asked about the ways through which a child learns language, the answer was that a child's overall language development occurs by imitation rather than direct interaction between the caregivers and the child.

Physical and motor skills development:

In the study of Save the Children-USA (1994) it was found that, in most cases, it was mothers who were responsible for taking care of the needs that contribute

to the physical growth and development of the child, including feeding and bathing, as well as providing reassurance and safety. Other members of the family such as siblings, grandparents, uncles and aunts contributed in physical care and development of the child.

Over 70% of the children studied had toys to play with to develop motor skills and a sense of physical mastery. The fathers were the main providers of toys. In observation, however, it was seen that children played more often with objects they have gathered themselves from their surroundings (such as leaves, clay, dry fruit and seeds, sticks, water, etc) which were not purchased for them. About 37% of mothers reported that they allow a child of two to three years of age to explore things by touching and playing with objects.

Nutrition plays key role in the physical development of children. The Bangladesh Integrated Nutrition Project (BINP) social assessment (Ahmad, 1998) found that there are gaps between nutrition and health-related knowledge and practice. Although people knew of the similar nutritional needs of girls and boys, quite a few women admitted that their family favored boys much more than girls which led to unequal distribution of food in favor of boys. The ^{study of} Save the Children-USA (1994) ^{study} showed that nutrition is an area of potential vulnerability for children of working mothers. Findings ^{indicated} ~~included~~ that over 40% of working mothers said that they had given up breast-feeding because of "work." Children of working mothers were more susceptible to malnutrition, and they also had their food prepared by caregivers other than their mothers. Poor nutrition was much less marked in the 30% of children whose food was always prepared by their mothers.

High rates of illness were found in urban poor population. The Situation Assessment and Analysis (2002) found that more than 70% of children of both working and non-working mothers had been ill during the previous month. Two thirds had experienced a respiratory infection; the remainder had mostly

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suffered from diarrhea. About three quarters of working mothers had sought treatment for their children, compared with less than 60% of non-working mothers. Although working mothers were more likely to treat illness in their children, they were less likely to seek qualified medical attention. They were more likely to go to a pharmacy and pick up medicines without consulting a qualified health worker. The reverse was true for non-working mothers.

Social and emotional development:

Childcare practices in the early years of a child's life are crucial in determining the child's social and emotional development. Childcare practices are influenced by various factors, including the socio-cultural practices and customs, attitudes and prejudices of the society and the family and education and behavior of the parents, and their social and economic conditions. All of these factors have direct bearing on the child's social behavior, cultural values and the attitude towards people from different culture, colour, sex, religion and political ideologies.

Parents tend to encourage certain social behaviours in their children. All mothers interviewed in the Save the Children Fund-USA (1994) study expressed that cooperation and perseverance should be encouraged in children. Ninety eight percent of mothers also felt that children need to be taught self-control and responsibility. Most mothers thought that these behaviours are most frequently taught to children above four years of age, although they can begin as early as age two.

Other social behaviors encouraged and emphasized by parents include competition (87%), sharing (65%) and manners (60%). Behaviors that are discouraged by the caregivers are being naughty, misbehaving, crying, throwing tantrums, fighting with other children and being noisy.

It was found that mothers play the most important role in socializing the child (80%). Fathers and grandparents play almost equal roles in behavior training (38% and 37% respectively). Siblings also take part in behavior training (20%).

In most cases (87% of observed children), mothers used verbal instructions to teach and develop behavior. Only 5% of mothers thought that a child harsh training could be effective to teach children. Some gender differences were observed in the care giving practices by the sex of the child:

- ◆ A girl child is more often disciplined;
- ◆ Caregivers insist that a girl child should be obedient;
- ◆ Mothers provide the main guidance in training in work and behavior for a girl child, while fathers are expected to play this role for boys;
- ◆ Girls are expected to stay at home and take part in household chores, whereas boys can get involved in outside activities; and
- ◆ Girls get clothed earlier because of the perception that since a girl's body is similar to that of an adult woman, it is more shameful to have it exposed.

In terms of perceived emotional needs, respondents said that children need understanding adults (93%), adults who can explain what is expected of the child (82%), and communicative adults (73%), so that they can 'learn to deal with the world through gaining a sense of security, competence and self-esteem.' Finally, mothers reported that children need adults to show affection towards them (78%), so that the child "can be happy and learn to love others and behave well with others." Observation showed that expression of physical affection was not lacking in most household, but the importance of talking with the child, of listening, playing and encouraging the child to discover and explore were less understood.

No information or data was found on any comprehensive initiative to date to indicate social and emotional development of children in rural Bangladesh.

Learning Achievement

Nationally recognized and comprehensive data is not yet available on learning achievement of children attending and graduating from schools in Bangladesh. Over the years however a number of assessment of Basic Competencies (ABC) studies were undertaken. These assessments have shown a low percentage of children achieving basic learning competencies. The UNICEF study in 1992 found that only 46% of children with 5 years schooling satisfied the criteria of basic education. In the CAMPE survey conducted in 1998 a higher percentage of Grade 5 completers (57%) achieved the basic education criteria, but this is still very low.

Besides the number of children not attending school, all children spend the majority of their time outside school. In urban areas, particularly in the urban slums, the physical facilities are very limited for play and recreation. There are very few opportunities for organized out-of-school activities. Traditional culture values often restrict the movement of girls, and in urban areas it may be unsafe for children to play freely outdoors. There is also a lack of awareness among caregivers regarding the importance of stimulation and creative play for overall child development.

1.5 Situation of Children in Bangladesh

On signing the Convention on the Rights of Child (CRC) in 1990, Bangladesh has been taking a more active and concerned role in improving the situation of children in the country and have taken two Five-years Action Plan since then. The progress of action plans are monitored and reviewed and further actions for improvement are taken accordingly. The action plan and interventions are focused on three major concerns of WSC i.e., survival, protection and development of the children. Findings from various progress and review reports are presented here to give a brief overview of children's situation in Bangladesh.

Child Population: Bangladesh is a demographically young nation, with annually two and a half million births. Out of a population of 128 million, there are 21.5 million children under six years of age, who represent over a sixth of the population. Out of this is a growing population of urban poor children aged 0-6, currently close to 2 million in number. Children aged 6 to 10 years also make almost an equal proportion, that is, nearly 20 million in number. Young people from 10 to 19 form some 23 percent of the population. In absolute terms the number in this age group was 27 million in 1995 and is projected to rise nearly 30 million by the year 2000 (Situation ^Aassessment and ^Aanalysis of ^Cchildren and ^Wwomen in Bangladesh, 2002).

Child Mortality: There has been significant reduction in infant and under-5 mortality during the last decade. Under-5 mortality rate declined from 151 deaths per thousand live births in 1990 to 92 deaths in 1998 (aim was 70 per 1000 live births). The mortality rates of male child dropped from 116 in 1990 to 58 in 1998 and female from 105 to 56. The impact of oral dehydration therapy (ORT) and immunization of children's health against six killer diseases and immunization of pregnant women with tetanus toxoid vaccine have made major contribution in reducing the infant mortality rate in the country. Poverty, low birth weight, malnutrition and environment degradation are cited as principal factors behind vulnerability of children (National Follow-up report on World Summit for Children, 2000).

Malnutrition: Malnutrition is a general problem in Bangladesh and is the underlying cause of many childhood illnesses. Bangladesh exceeds the WHO criteria of "very high" prevalence rates. Although there has been a steady decline in the severe underweight among under 5-year old children, there has not been much change in the proportion of moderate underweight children over the

decade. The rate of severe underweight from 25.9% in 1990 to 13.1% in 1998 (NIPORT, 1999-2000), whereas the proportion of moderate underweight children showed only a slight decline from 40.6 in 1990 (BBS, 1990) to 34.8 in 1999 (NIPORT, 2000). The severe stunting rate, according to Child Nutrition Survey (BBS, 1997-8), has declined gradually from 35.2% in 1990 to 18.4% in 1999. Not much change has been observed in the prevalence of moderate stunting during this period, i.e. 30.3% in 1990 (BBS, 1990) to 26.4% in 1999 (NIPORT, 2000). Severe wasting is a sign of acute malnutrition, closely linked to an increased risk of death. In Bangladesh, the proportion of severely-wasted children is relatively low, about 1.05% in 1999 (DHS, 2000). The preliminary report of the latest Demographic Health Survey (DHS, 2000) also showed a significant decrease in the rate of moderate and severe wasting in the last few years, from 16.6% in 1996 to 10% in 1999 (NIPORT, 2000). Geographical comparison reveals that a much higher rate of children in rural areas are stunted, wasted, and underweight than in urban areas. But when the urban data is disaggregated to slum and non-slum populations, it becomes clear that the nutritional status of children that live in urban slum areas is worse than rural areas (National Follow-up report on World Summit for Children, 2000). Prevalence of iodine deficiency disorders has been significantly reduced over the decade through universal salt iodination. However the low urinary iodine prevalence rates among children aged 5-11 years is still high, 42.5% in 1999 (Dhaka University, ICCIDD, UNICEF, 1993, 1999).

Basic Education and Vocational Training: The concept of basic education as propounded at the World Conference on Education for All in 1990 (Thailand) is equivalent to primary level education in Bangladesh. It is estimated that the gross enrolment rate has gone up from 85% in 1990 to roughly 106% in 1999. Net enrolment, although increased in the early 1990s, it has stuck at

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around 80% since 1994. The trend-rate of net enrolment depicts an unexpected pattern - a decrease from 82.45% in 1994 to 80.9% in 2000. Children reaching grade five has been increasing over the years, from 42% in 1990 to 70.3% in 1998. The estimates for male children for the period 1990-98 have been 43% to 69.1%. Equivalent estimates for the female children have been 42% in 1990 and 66.7% in 1998. Another positive indicator in educational development is pupil attendance rate in the school. Primary school attendance for both sexes has gone up from 64.4% in 1994 to 72.8% in 1997; in case of male pupil it was around 63% in 1994 and 71% in 1997. In case of female pupils, the attendance increased from 66% in 1994 to 74.7% in 1997. In spite of the increasing trend in school enrolment, out of a total primary school age population of 19 million, 3.5 million are not enrolled. The challenge is to enroll this big segment of children into the school. Moreover the quality of education and low achievements are still a problem. Compared to the increased enrolment rate there has been less improvement in the dropout rate (from 48% in 1995 to 30% in 2000) and primary level completion rate (from 52% in 1991 to 65% in 2000). Mismanagement and state of negligence existing in the educational institutions especially in the basic education institutions are the fundamental reasons behind this.

The institutions offering vocational training at secondary level are 51 Vocational Training Institutes (VTI) and 12 Technical Training Centres (TTCs). At present, there are about 11,000 students attending these institutions, just over 10% of who are female. Both VTIs and TTCs offer training in basic trades. Most students have completed Grade 8 before entering into these schools but out-of-school applicants with lower educational qualifications are not accepted for basic trades training. However the formal and non-formal technical and vocational training is not well linked with the job market, consequently, the skills

trainees acquire are not much in demand in the market. Also, the underprivileged adolescents outside the school system, mainly females do not have access to acquire the skills through the technical and vocational training system. A few NGOs are engaged in vocational and technical training for the underprivileged adolescents and some of them also help in job placement for the young trainees and offer skills that are geared toward self-employment.

Children outside of school

Approximately 10% of children never enroll in school, and according to official statistics about 38% of children drop out before completing the primary level. Added to this is a low attendance rate. This means that a large number of children (approximately 20%) are not enrolled in school, and a number of those enrolled do not attend regularly. Particularly vulnerable groups are the very poor, children in urban slums and children in rural communities where schools are not easily accessible. Many of the children are already involved in income-related work and their families may be dependent upon their earnings for survival. NGO run non-formal education centers as well as satellite schools partially address the access problems, but from the statistics it is clear that more needs to be done to ensure the fulfillment of every child's right to education.

Children in Need of Special Protection: It is suspected that in a slow-growing and populous country, children from mainly socio-economically disadvantaged families are finding themselves in difficult circumstances, e.g. drug, tobacco and alcoholic abuse. From the print and electronic media reports, it is apparent those children trafficking to India, Pakistan and Gulf-countries have been taking place. Rape of children, torture of maidservants and other forms of exploitation are exist without much action taken against the criminals.

It is a stupendous task for both the State and the society to protect children from exploitation.

Children with special educational needs: The data on the total population in Bangladesh having special educational needs is nonexistent. In most surveys such children are simply listed as being incapable of taking part in school. The provision for children with special educational needs in comparison with the overall numbers expected in a normal population is very limited. Less than 600 visually impaired school age children are receiving full time formal education, which is but a tiny proportion of what must be the overall total. A few NGOs have started to teach children with special needs in some of their non-formal learning centers. But the number of such initiatives is very few and only a small proportion of children with special needs receive any sort of education.

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Child labor: The issue of child labor is a growing concern for Bangladesh. More than 6.3 million youngsters under 14 years, work in Bangladesh. A comprehensive national household study of 1995-96 'Sample Survey of Child Labor in Bangladesh' (CLS) revealed data as follows:

Table-1.1: Distribution of Child Labour in Bangladesh (1995-96)

	Male %	Female %	Both sexes %
Urban	13.8	16.5	15.2
Rural	16.7	23.4	20.2
National	16.0	21.9	19.1 (6.6 million)

Source: CLS-1995, Bangladesh

The type of work children are engaged in primarily depends on where they live. Nationally, 66% of children were found to be working in agriculture and 34% in

other sectors. In rural areas, children are engaged in about 90 different occupations, and many are found working alongside their families in agriculture. Urban children engage in a wide range of occupations, including domestic service, selling various goods and services, waste collectors, workers in small informal factories, workers in the formal sector, and other occupations. In total, 301 occupations engaging young children in urban areas were identified by a BBS rapid assessment survey (in Situation Assessment and Analysis of Children in Bangladesh, 2002). Of the 301 occupations, 27 were classified as being hazardous.

According to CLS (1995-6), only 36% of working children receive any pay. The unpaid workers, 58% of boys and 71% of girls, are mainly family helpers and apprentices in farms and factories. The salaries are low and variable for those children who receive it in cash, an outcome of their weaker bargaining position. Domestic servants usually earn less than the average, if they are paid at all. Nearly 70% of child labourers mentioned their parent's financial problems as reason for working.

These children are unable to access learning opportunities whether it is education or skill development. Eighty-nine percent of working children surveyed in the CLS (1995-6) were found to have no education, with only 9% being educated up to class 5. It can be argued that the major social cost of child labor is the loss of opportunity of spending time in school. A vast majority of the children surveyed asserted that, given the opportunity, they would attend school. However, they are unable to pay for school related expenses such as tuition, schoolbooks, and other school supplies.

They also have low levels of knowledge relating to their rights and a lack of any access to protection services: health care, legal aid, social and emotional support. The main hazard however is the interruption of schooling, and lack of opportunities for recreation, thereby hampering socialization, mental and

physical development. Domestic child workers are often subject to physical punishment or other forms of abuse including sexual abuse by their employers. An opinion survey of the employers in Dhaka and Chittagong city, undertaken by UNICEF (1998), showed that a domestic worker is engaged in work for 16 hours per day. There are estimated to be more than 200,000 female child domestic workers in Dhaka city alone. A survey of 10,000 households undertaken in Dhaka city by Shoishob (1997), showed 90% of the girls were between 9 - 16 years old and half of them were completely non-literate.

Recreation

Recreation facilities are few for adolescents, especially girls. Social norms and taboos, fear and security consideration narrow the young females' access to outdoor recreation facilities. Moreover, at home she may be burdened with domestic chores. Many of the young female children are married off and are expected to carry out responsibilities at their new home. Rapid urbanization has led to the shrinking of physical facilities available to the adolescent in the urban areas. As for the working children many work long hours and their need for recreation remain unrecognized (especially for those who work as domestic help). The CLS (1995-96), on hazardous child labor found that 62% of the sample of child workers in urban areas worked 8 or more hours each day, and 38% for more than 10 hours. They often worked overtime on holidays. The State has failed to provide proper recreational programs or important life skill development programs that would help the healthy and productive development of adolescents. Moreover, the community, family and service providers are not aware about the needs of adolescent children for recreation, for expressing their views and participating in matters that affect their lives. The adolescents are expected by the family and the community to act as adults on some matters, like work, responsibilities toward parents/family and their capacity to undertake

such adult responsibilities is overestimated. While on other matters - like their plan for future, work they prefer to do, deciding on marriage, etc.- where adolescents are all full of ideas and eager to share their views - their potentials are under-estimated and they are treated as young children. Neither the family/community nor the schools address the confusions and concerns that arise in these young minds. Institutions do not have provision for family life education and sex education, and families do not have the time or awareness to listen to their children and provide them emotional support (Situation Assessment and Analysis of Children and Women in Bangladesh, 2002).

1.6 Development programmes of Non-Government Organizations in Rural Bangladesh

The non-government sector in the country became closely associated with the development efforts of Bangladesh from post liberation war of 1971. At the time as the government sector was engrossed with huge task of rehabilitation of the war affected people, infrastructure and almost ruined economy, the Non-Government Organizations (NGOs) emerged to respond to the development needs of the country. Since then NGOs have taken a good position complementary to the government in the field of social, human and economic development of the nation.

1.6.a. An overview of NGO sector in Bangladesh

There are over 22 thousands NGOs working in Bangladesh, some of which are working at national level while others at local level. There are several Government-NGO collaborative projects which implemented in large scale with wide geographical coverage. However NGOs have some distinctive features, which distinguish them from the government sector, and has enabled them to assume a separate identity with respect to their programmes and work style. An

overview of the NGO sector and their impact is presented in this section (Ahmed, 1999).

i. **Definition of NGO**

Under the Societies Registration Act of 1860, the non-government organizations were regulated as 'literary, scientific and charitable societies.' This Act promulgated for "improving the legal condition of societies established for the promotion of literature, science, or the fine arts, or of diffusion of useful knowledge, the diffusion of political education or for charitable purposes." Seven or more persons associated for any literary, scientific or charitable purpose may, by subscribing their names to a memorandum of association and filing the Register of Joint Stock Companies, form themselves into a society under this Act (Ahmed, 1999).

The Voluntary Social Welfare Agencies (Registration and Control) Ordinance was promulgated in 1961 "to expedite the registration and control of voluntary social welfare agencies and for matters ancillary thereto." A Voluntary Social Welfare Agency is defined as:

...organization, association or undertaking established by persons of their own free will for the purpose of rendering welfare services in any one or more of the fields mentioned in the schedule and depending for its resources on public subscriptions, donations or government aid.

The Director of Social Welfare of the Government of Bangladesh is the appointed registration authority for Voluntary Social Welfare Agencies (Ahmed, 1999).

ii. **Origin of NGO**

During the colonial period, group voluntarism was common when struck by disaster such as flood, famine and epidemics. Local elites and landlords would form such temporary groups to provide support to the distressed people to

survive the critical period. Once the crisis subsided the altruistic groups also ceased to exist.

Institutionalization of charity work and social welfare activities in Bangladesh were first made by the Christian missionaries. They worked in remote and poverty stricken areas and set up schools, hospitals, orphanages, etc. This is how NGOs originated in the present sense of the term. The devastating war of independence in 1971 resulted into massive destruction and disintegration of all sectors. Thousands of people were homeless and millions were hungry. The need for relief and rehabilitation of the war-affected people was the first priority. Number of NGOs came into existence to respond to this need. Their activities were more development oriented. They were more institutionalized with formal management structures and a large number of paid staff. Thus they differed in their identity from the charitable volunteer groups. Along with social welfare activities, interventions in the field of social mobilization and rural development became the main thrust of the NGO sector in Bangladesh since the mid-seventies. Since then there had been a rapid growth of the sector, especially during the '90s, in terms of numbers, programmes, coverage and monetary involvement.

iii. **Types of NGO**

There are reportedly more than 22,000 NGOs which are registered with the Social Welfare Directorate of the Government of Bangladesh. They are categorized under four broad headings based on their origin, size, source of fund, management structure, sphere of activity, etc. The four main categories are as follows:

a. *General Voluntary Social Welfare Organizations (GVSWO)*

The GVSWO are organizations which are small in size and function locally with funds mobilized from local donations and government grants. Activities are mainly implemented by volunteers. Until 1985 there were about 7000-registered

GVSWO. The number rose to 13 thousand in 1991 and over 21 thousand in early 1999 (Begum, 1999).

b. *National Social Welfare Organizations*

National social welfare organizations are of the same type as GVSWO but operate on a national scale, mainly with local resources. The directory of the social welfare organizations have 17 such organizations registered but an update of the number is not available.

c. *Bangladeshi NGOs Operating with Foreign Donation*

Organizations belonging to this category are perceived as development NGOs and they are registered under the NGO Affairs Bureau. Programs of these organizations are funded by foreign development agencies, bilateral donors and multilateral agencies. They work with paid staff. Some of them have more than a thousand staff in the pay roll. The number of such NGOs was 1223 in July 1999. (Ahmed, 1999).

d. *Foreign NGOs*

Many NGOs of foreign origin started operating in Bangladesh after 1971. Many of them participated in the relief and rehabilitation works in the early seventies. There are mainly three types of foreign NGOs:

- Those who supply volunteers to other development NGOs. These volunteers are recruited from the OECD countries of Europe and North America.
- Those who provide fund to other NGOs for implementing development activities. They do not implement any development programme directly but monitor those which are funded by them.
- Those which of foreign origin and implement social welfare and development programmes by themselves

In June 1991, the number of such foreign NGOs operating in Bangladesh was 99 and the number rose to 147 in July 1999. (Ahmed, 1999).

e. *Networking NGOs/Forum*

Many NGOs have networking as one of their activities taken to support other activities. However there are some organizations whose main programme is to network and form forum for organizations with similar objectives and goals, such as Bangladesh Shishu Adhikar Forum is a platform for organizations working on child rights and welfare issues. Some of these networking forums have both local and foreign NGOs and other non-NGO institutions in their membership.

The present focuses on those NGOs which are directly implementing development programmes in the rural areas of Bangladesh to bring a positive change in peoples' lives.

iv. **Growth of NGO sector:**

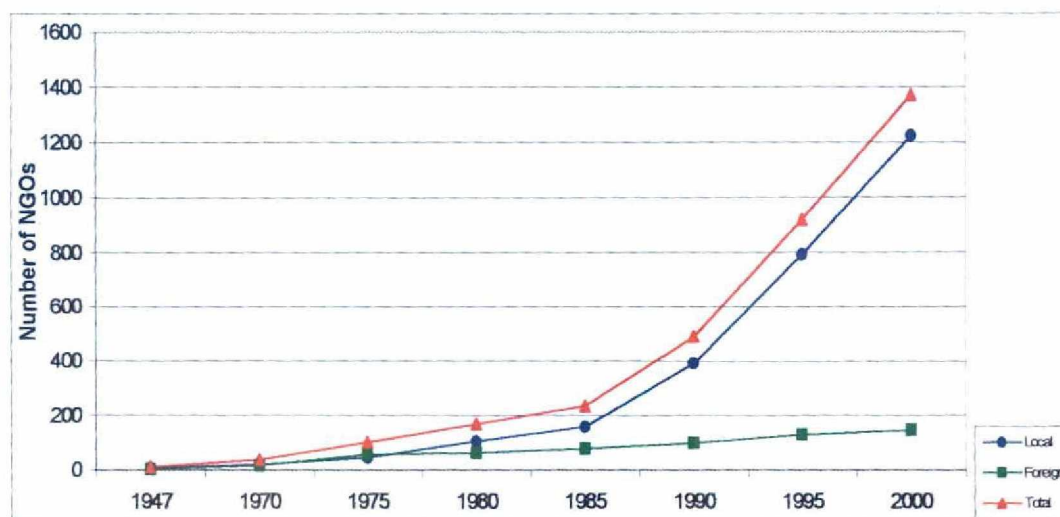
In 1947, when India and Pakistan emerged as two independent nations and Bangladesh (then known as East Pakistan) emerged as a separate territorial entity within Pakistan, there were only nine development NGOs including two of foreign origin. In 1970, there were only 40 development NGOs including 19 foreign NGOs working in different parts of the country. Since then there has been a significant rise in the number of NGOs and expansion in terms of area, activities and financial involvement. Table-2 and graph-1 below shows the rising numbers of Development NGOs (registered under NGO Affairs Bureau and working with foreign fund).

Table-1.2: Growth of NGO from 1947 to 2000

Year	Number of development NGOs		
	Local	Foreign	Total
1947	7	2	9
1970	21	19	40
1975	45	56	101
1980	107	63	170
1985	157	79	236
1990-91	395	99	494
1991-92	523	111	634
1992-93	600	125	725
1993-94	683	124	807
1994-95	790	129	919
1995-96	882	132	1,014
1996-97	997	135	1,132
1997-98	1,096	143	1,239
1998-99	1,215	146	1,361
1999-2000	1,223	147	1,370

Source: ADB, NGO Affairs Bureau

Graph – 1.1: Growth of NGOs in Bangladesh (1947 to 2000)

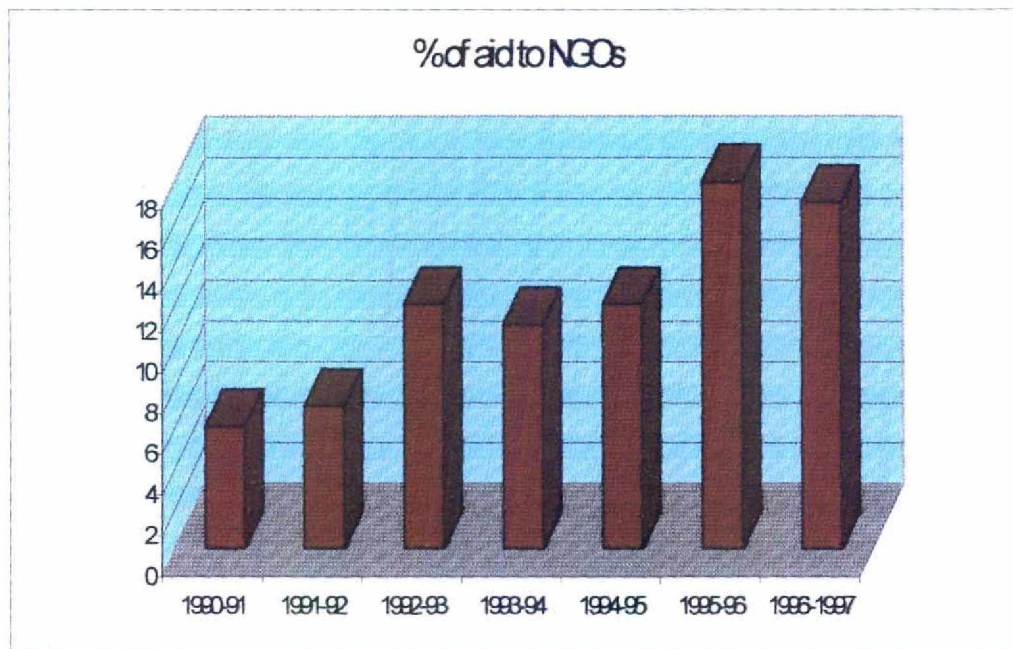


Source: ADB, NGO Affairs Bureau

During the period from July 1990 to June 1999, 5997 projects were approved by the NGO Bureau involving total amount over US\$ 2.4 billion. The share of NGOs in the total amount of foreign economic assistance (grant and loan) has

been tripled during the '90s. In early '90s NGOs registered with NGO bureau accounted for six percent of total amount disbursed. The amount rose to 18 percent during the mid-90s (Bangladesh Economic Survey, 1998).

Graph – 1.2: Percentage of foreign donation to NGO sector over the years: 1990 to 97



Source: Bangladesh Economic Survey, 1998

Programme focus of NGOs

During the early post independence period NGO concentrated on relief and rehabilitation programmes. By the '80s, relief and rehabilitation programmes declined and is now undertaken only at disaster times like floods and cyclone. NGOs gradually shifted their focus to human development programmes which were the main thrust till the early '90s. The trend then shifted towards micro-credit promoting income generating activities and economic growth in the poorer sector of the society.

NGO activities in Bangladesh may broadly be categorized into two groups: catalytic and service delivery. Some NGOs are involved exclusively in raising social awareness building activities through functional education, human development training and workshop and exposure programmes. Some NGOs have major thrust in the delivery of certain services like literacy, preventive and curative health care, family planning, water and sanitation, vocational training, credit and marketing. Some NGOs are trying to combine these two sets of activities in their programme package.

In 1991, 55% of total NGO expenditure was allocated to human development initiatives. There were 54 approved NGO projects for education which accounted for 6% of total spending in the sector. About 90 projects were undertaken for health and family planning field accounting for 25% of the total spending in the sector. Except for a few big NGOs, most resources were targeted to non-credit type of activities which included consciousness-raising, group formation, health and family planning, education and so on.

An increasing thrust towards a credit programme by mainstream NGOs has been observed since the mid-90s, "Micro-credit" becoming the catchword in the development vocabulary. In terms of revolving fund, it is now the biggest activity of the big NGOs and is a core activity of many medium and small NGOs. Total revolving fund for credit stood over eighteen billion Taka in December 1998 (CDF, 1998). In total, over 800 NGOs are involved in the credit programme. The popularity gained by credit programme is perhaps because it serves to achieve two objectives simultaneously, that is economic stability for the poor through self-employment and financial sustainability of the organization itself.

The majority of NGOs adopted a target group approach, the target audience being men and women belonging to the landless and other poorer strata of the rural population. This approach is a manifestation of the realization that benefits

of the awareness raising programmes are usually trickled down to the poorer sections less than proportionately (as they do not have access to resources) and the fact that the poor are less organized and hence more powerless. Therefore village-based groups are the core of NGOs institution building process. Most of the programmes are addressed through carefully selected groups of homogeneous socio-economic background. Usually separate groups are formed for men and women. Different NGOs work with different sizes of groups, it may range from 10 to 50 members in each group.

The capacity to organize groups at the grassroots level and to promote horizontal and vertical linkages between these groups is an important feature of the NGO strategy in Bangladesh which markedly distinguishes them from government agencies. Moreover the group concept was replicated for development projects for many other developing countries. NGOs give special emphasis to address the poor women in their programmes recognizing the fact that they are subject to double exploitation: first as gender and secondly as a class. The group approach in development initiatives, particularly for women, has been appreciated in the development literature of the government (Planning Commission, 1991)

1.6.b. Major Achievements of NGOs

The success and failure of NGOs and their impact on national development or growth has become a debatable issue for different professional groups. On one hand, NGOs involvement in various sectors of social welfare, especially for the rural poor is an indicator of their successful ventures. On the other hand, development in the rural areas and conditions of the poorer segment as compared to the huge amount of fund allocation to the NGOs and rise in the numbers of NGOs do not show the expected impact. NGOs often face the allegations of lack of transparency and mishandling of the financial resources.

However despite all sorts of criticism, in some areas NGOs have brought visible and tangible results and there are many success stories. Some such achievements are presented as follows:

Health and Family Planning: NGOs have been giving efforts in the health and family planning sector for many years. NGOs contributed to as much as 40% in the total contraceptive performance (BIDS, 1988). Comparative statistics of some NGOs show a relatively better performance of contraceptive prevalence in areas covered by the NGOs. An evaluation conducted by USAID (mentioned by Ahmad in Bottom-up Approach: NGO sector in Bangladesh, 1999) indicated that the programme areas of the Family Planning Association of Bangladesh (FPAB) have contraceptive prevalence rate (CPR) above 50% compared to the national average of 38%. It was found that better performance power endowments (Ahmad, 1999). BRAC's Child Survival Programme (CSP) is another of success in this area. The programme was implemented during the period from 1986 to 1991. An evaluation of the programme revealed that universal child immunization was achieved in all BRAC working areas and a CPR of 51% was achieved after six months compared to the national average of 30 % during the corresponding period.

Education: BRAC and other NGOs have made a significant change in the education sector by introducing the non-formal education for both adult and children. BRAC alone had planned to increase the number of schools to 100,000 by the year 2000 and 34,517 schools were already operating by the end of 1998. In the field of primary education, enrollment doubled from eight to sixteen million between 1980 and 1997, and coverage from 65% to 85% of the age group. And inclusion of NGO operating schools show increase in the enrollment by another 2 million which is 10 percent of the total students of corresponding age group.

Micro-Credit: Credit is seen as one of the major strategy for poverty alleviation as it provides opportunities of either alternative source of income or expansion or diversification of existing source of income. Initially the commercial banks in the public sector and the Bangladesh Rural Development Board (BRDB) were the major sources on institutional credit in rural areas. Since the '80s, the NGOs started entering the credit market in a significant way. Grameen Bank, BRAC, ASA, PKSF are some of the major credit institutes. Many other national and local NGOs are presently engaged in small-scale credit activities targeted to the rural poor. According to various reports the performance of NGOs in targeting the rural poor, especially women and recovery rate of credit is much better than that of government and public sector. The rate of recovery of loan is reportedly 93 percent for the NGOs (CDF, 1998). According to data of CDF (Credit Development Forum), total number of active members (borrowers) of 495 reporting NGOs rose to about eight million in December 1998. However it is difficult to report on the effectiveness and the impact of the NGO credit activities, as there are very limited studies on these.

People's Participation: In contrast to the traditional 'top down' approach of development projects in the public sector, NGOs had taken a 'bottom up' approach to ensure people's participation and responsive of the projects to people's needs. NGOs give much efforts in capacity building and institutional development at the micro level and see themselves as 'change agents' rather than 'project managers'. Their target groups, consisting of the grassroots people, have more opportunity to express their will, participate in project planning and also they have a greater role in implementing those projects. The lack of public participation is a major weakness of the public sector projects in planning, implementing, monitoring and evaluation. NGOs on the other hand have proved to be more people oriented in their strategies and programmes. They are

in a position to organize beneficiary groups and implement programmes through these groups where their staff members are generally not perceived as outsiders.

Impact on women: Women constitute majority of the NGO targeted population. Several types of programmes are undertaken for women development as this has been a priority of the donor community in providing fund. The focus of NGO on women has given women a new impetus. Rural women, who hardly crossed the yard of their own household, started interacting with community people as a result of being members of target groups. Women are the main focus in credit programmes. Women members are also encouraged to undertake income-generating activities supported with skill training and credit. Various awareness programme, literacy and health programmes are also targeted for women. As a result of the attention of development organizations towards women has shaken the traditional perception of women and their subservient role. Although change in the conditions of women is not yet visible in massive form but a trend against patriarchal practices has already started and is silently spreading over the rural community.

1.6.c. Concerns and Limitations of NGOs

Considering the large number of NGOs and the amount of resources channeled through this sector the overall impact produced is often disappointing for the development analysts. Some of the weaknesses for such disappointing results have been identified as follows (PKSF, 1991-92):

- NGOs undertake programmes with high overhead cost, limiting large scale impact
- Programmes continue with no "visible impact"
- Activities are not structured for graduation of the poor to self-reliance

- There is lack of transparency and accountability.

Such criticism may not apply to all NGOs but these cannot be denied for most of the NGOs implementing development programmes. In “Bottom Up Approach” Mohiuddin Ahmad (1999) has discussed some of the reasons as to why NGOs are not bringing expected visible impact.

Target population: UNDP's human development report (1992) on Bangladesh mentions that even the best performing programmes hardly reach the bottom 20% of the population. The World Bank document (1996) has also mentioned about exclusion of the extreme poor from NGO programmes. This is also evident in the pattern of utilization of the credit programme. Most of the NGO's credit is disbursed to activities with long gestation and are probably used by the "better-off poor". NGO credit for self-employment programmes presumes possession of basic assets on the part of the intended beneficiaries, including social and financial skills and stable habitation. Such programmes seem to encourage the relatively skilled and stable segment within the poor to put themselves forward and thus become the programme beneficiaries. The selection process leaves out the extreme poor.

Overlapping: NGO programmes are not equitably distributed over the country. It is concentrated in one area while sparse in other. More NGOs are more concentrated in urbanised and central regions, thus having a less coverage in the remote and periphery areas. Moreover the nature of programme and service delivery is also more or less of a same kind. Thus beneficiaries of a particular area can avail similar type of benefits from four or five NGOs while beneficiary of a remote place do not have access to any of such service. Furthermore same household are members of two or three NGOs (where NGOs are concentrated). Thus overlapping exists in many forms geographical location, programmes and beneficiaries.

Cost of Operation: NGOs are often praised for their capability of bringing services to the doorsteps of the people. But when analyzed in terms of cost efficiency, these programmes turn out to be failure. A study showed (Human Development in South Asia, 1999) that it cost at least six taka and a half for transferring one Taka of income. NGOs face much criticism for their high administrative expenditure in staff salary, vehicle, travel, furniture, office rent, equipment, etc. In reality, a very small share of the resources actually trickles down to the target beneficiaries.

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Reaching Women: Women are major target population for most NGOs. This is also indicated in the composition of membership credit client of the NGOs. On the contrary there is little change in women's position and condition in the society. Observations show that loans received by women are actually used by male member of the household (husband, brother, son, father, son-in-law, etc.). Increase in family income has not significantly improved health standards of women. The gender gaps in health status and life expectancy are still persistent. Household assets and means of production are mostly owned and controlled by men. Even if women are coming forward to participate in income generating activities, they are still confined to traditional activities delineated by gender roles, returns from which are low. Rates of return on a full-cost basis tend to be negative particularly in activities where women are predominantly involved. Paddy husking, mat making and bamboo and cane work are few such examples. Furthermore the reported cases on violence against women are on the rise. Women are continuously suffering from dowry, domestic violence, sexual harassment, forced divorce and many other forms of abuse. Thus the overall condition and situation of women do not show much improvement if the various programme and costs involved are considered.

Sustainability: Too much dependency on donor fund for programmes questions the sustainability and continuity of NGO programmes. Usually donor fund for programmes which relatively of short term, three years on the average. Such short-term programmings do not bring about sustainable impact in the community. Sometimes a programme is closed down after completion of a term if donors do not want to continue funding. Few NGOs have been able to create their own resource base to attain institutional sustainability in financial terms. In the wake of stiff competition for scarce resources, smaller and weaker NGOs are being driven out of the market. Donor agencies also seem to finance big NGOs or smaller ones through big NGOs. This has developed several coalitions of NGOs, each in the orbit of one big NGO, which is good in a sense that it widens the scope of using local resources and share expertise.

Transparency: Lack of accountability and transparency are two major shortcomings of NGOs. Easy access to grants from outside the country has largely contributed to the proliferation of NGOs in the country. The period from the eighties to mid-nineties may be characterized as the period of mushrooming of NGOs. During this period, securing funds through kickbacks has been a regular gossip and an issue of concern. A section of NGO entrepreneurs, staff of donor agencies and government officials have been reportedly involved in all sorts of underhand transactions. This is also evident in the state of some signboard NGOs who were flooded with easy money, while some NGOs with good track record failed to pull resources despite good intentions and programmes. Corruption is a widely used term in the field of governance. It is expected that the civil society organizations like NGOs will be able to provide a moral standard. But it did not turn out to be so. Several well-financed NGO delivery systems are notoriously corrupt - exploding donor funds without providing the services promised. NGOs generally have on one

particular body to which they are accountable, and they do not have readily acknowledged "bottom line" against which performance can be measured (Human Development in South Asia, 1999). Most donors are satisfied with the paper work thus it is easier for notorious NGOs to keep records in track without producing results as promised.

Credibility: People, in general, have a very mixed feeling and reaction regarding NGOs. Some say that they are doing a good job, filling up the gaps which are left by government services. Others have the opinion that they are just a bunch of brokers appropriating a bit of aid resources. Some hold a very high opinion that the NGOs had been instrumental in the mobilization of the poor against the hostile social power structure. Others smell the conspiracy of maintaining the status quo in them. In spite of such mixed reaction people would agree to one point that this sector has created employment opportunities for the educated youth which would otherwise not be possible for the government to provide.

1.7 Purpose and Objectives of the Study

The main purpose of the present study is to investigate the long-term impact of NGO intervention on psychosocial development of children in rural Bangladesh. The domain of psychosocial development of children is very wide, the present study has therefore chosen a few important ones to have an overall view indicating status of rural children's psychosocial development.

To achieve the purpose of the study the objectives were to find out whether there is difference in psychosocial development between

1. Children of NGO-members and non-members;
2. Rural girls and boys;
3. Rural children of different age groups (12 to 16 years).

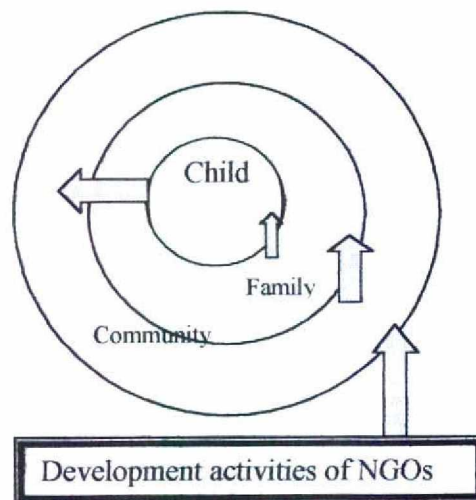
In this context the independent variables were: Parents NGO membership, Sex and Age of rural children and dependent variables were the psychosocial variables as follows:

- a. Problem solving ability;
- b. Self-Esteem;
- c. Achievement motivation;
- d. Knowledge regarding some social and health issues;
- e. Time spent on different activities by the rural children.

1.8 Rationale and target group

Psychosocial development means systematic and progressive changes within an individual along some psychological and social constructs such as cognition, attitude, values, self-esteem, interpersonal interactions, etc. There are several factors that may foster or impair psychosocial development of children. In rural Bangladesh, a large number of children lag behind normal development on psychosocial aspects due to lack of proper stimulation, parental ignorance (illiteracy, poverty, powerlessness, etc.) and economic factors. On the other hand a large number of non-government organizations (NGO) are working to bring a positive and long-term change in rural Bangladesh. By *long-term* change here it means the extent to which the impact of NGO intervention on adults (NGO beneficiaries) has an influence over the child in the same family. This is explained through the following figures:

Figure – 1: The long-term cycle of benefits from NGO intervention



The figure-1 shows how the development activities have long-term impact in the society. The development activities are implemented in the community and thereby benefit the families in the community. The family in turn benefits children who live in the family. When there is a positive change in the children as the result of the development work the benefit goes back to the community. An example of this cycle is shown in figure-2.

Figure-2: The long-term impact of development activities:

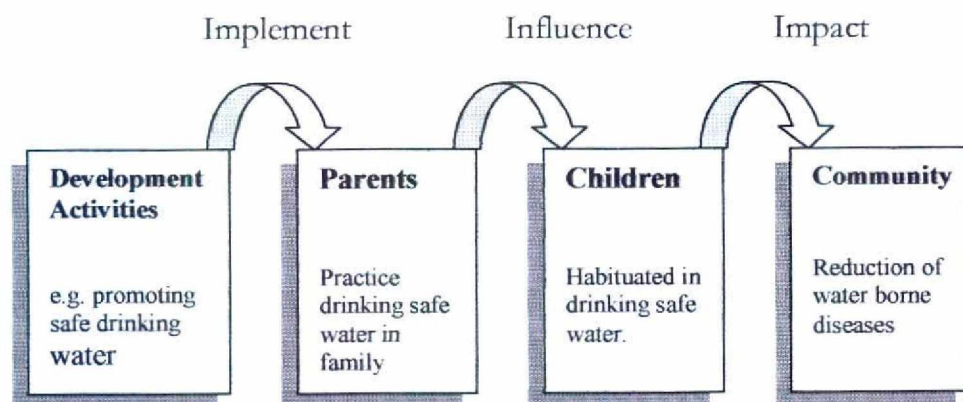
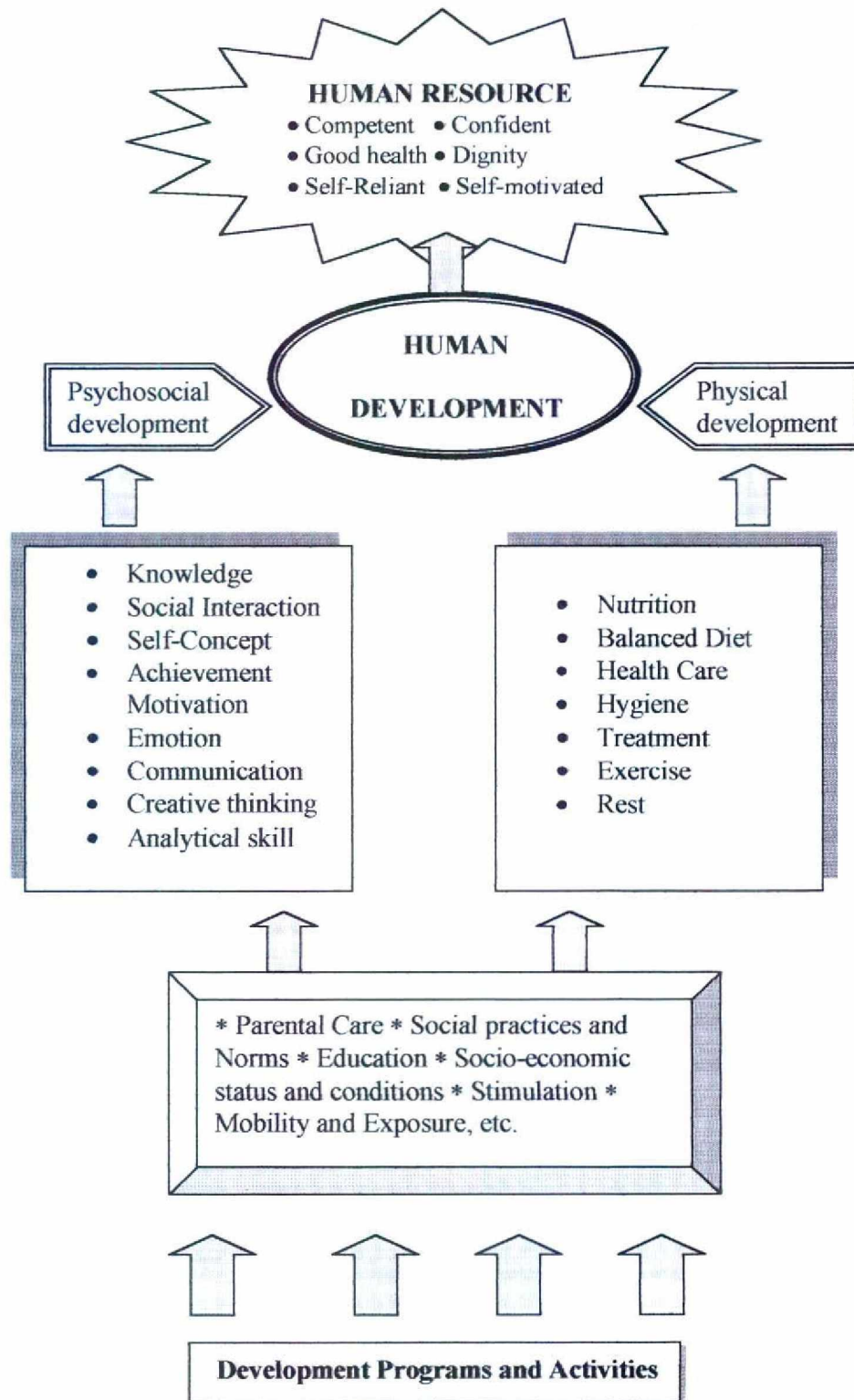


Figure-2 illustrates an example how the development activities have a long-term impact through changing behavior of children. The NGO promotes drinking of safe water by raising awareness of parents. As a result parents introduce the practice of drinking safe water, it can be by boiling water or drinking arsenic free water of tube well, etc. The behavioral change in parents due to this awareness shapes behavior of children who become aware and habituated in drinking safe water, therefore as grow up they continue the same practice. Ultimately there is a reduction in the water borne diseases like, diarrhea, dysentery, typhoid, etc. In this whole process the transmission of awareness and behavioral change from parents to children is most important for a long-term change. If this change does not occur there is less possibility to have a meaningful change in the society through development activities.

Another important aspect of the development activities of NGOs is that most NGOs programs target human to bring positive changes in the society or communities. In this effort to promote human capital it is very important to understand the factors that influence the growth of human as a resource. The process involves both physical and psychosocial growths which are influenced by several factors operating within the domains of family, society and state. The figure-3 shows the relationships of various influencing factors of human resource development.

It can therefore be logically argued that the psychosocial development of children of NGO beneficiaries might be facilitated indirectly through their parents who are benefiting from intervention programmes aiming at human development. If the children of the NGO beneficiaries show significant change in terms of their psychosocial behavior then it can be concluded that the NGO interventions are having long-term impact. Based on this argument the present research was undertaken to investigate the impact of NGO intervention on psychosocial development of children in rural Bangladesh.

Figure-3: Influencing Factors of Human Resource Development



CHAPTER – II

METHODOLOGY

METHODOLOGY

Objectives of the study

The main purpose of the present study was to investigate the long-term impact of NGO intervention on psychosocial development of children in rural Bangladesh with the following objectives in particular:

To find difference between

1. Rural children whose parents are members of NGO and those whose parents are not members of NGOs;
2. Rural Girls and Boys; and
3. Different age groups of rural children from 12 to 16 years.

In terms of :

- a. Problem solving ability;
- b. Self esteem;
- c. Achievement motivation;
- d. Health and Social Knowledge;
- e. (Time spent in learning, working and recreation.)

The methodology of the study comprised of a multi-method approach. It consisted of self administered scales, test, problem solving tasks and interview. Due to the nature of the problem and non-availability of ready tools, the instruments had to be constructed or modified and field-tested for their appropriateness and reliability. On finalizing the instruments, the investigators were trained before they started administering the tools for data collection. The sample size from each District was predetermined, while the number of subjects to participate in the research from Union or Upazila level depended on the schools from which the subjects were drawn. Some schools allowed only one day for this purpose while other schools allowed three days, therefore there was a factor of convenience in selecting subjects for the study. The steps in data collection were as follows:

1. Defining the sample
2. Construction of the tools
3. Field test of the tools
4. Training of investigators
5. Planning of data collection and Selection of sample
6. Administration of the tools and data collection
7. Scoring of the tests and quantifying responses
8. Data entry and Analysis of data

2.1 Defining the Sample

The study comprised of 300 school going rural children as respondents. Their age ranged from 12 to 16 years. The sample constituted of an equal number of boys and girls. Among the total of 300 children, 148 had parents (either father or mother) who are member of NGO and 152 children had parents who were not member of any NGO. In this study, NGO-members, who are also commonly known as Samity members, are those parents who are associated with at least one NGO as a beneficiary and a member of a group facilitated by that NGO. Children of both NGO members and non-members had a similar socio-economic background. More detail information on sample is given in Table-2.1 and 2.2.

2.1.1 Selection of Sample

In order to have a representative sample, the sample size was distributed as per population density of the country. The sample was selected from four main divisions of the country following multi-stage random sampling technique. At the first stage, districts from the divisions were selected randomly then same procedure was followed to select the Upazilas, Union and Schools. The study covered in total 14 Unions and 23 schools from 7 District under 4

Administrative Divisions of Bangladesh. (The list of Schools and the Unions are given in annexure-I).

For data collection, a school of the selected Union was approached and with the consent of school authority the investigator collected lists of students' of class VI to IX. Also information regarding the NGO membership of the parents of these students was checked. The respondents were selected following the purposive incidental sampling technique. An equal number of male and female and children of NGO-members and non-members were included in the study.

2.1.2 Distribution of Sample:

The table-2.1 below shows the distribution of sample by parent's NGO membership, sex and age. Highest number of sample belonged to 14 years of age. While the least were from 16 years age group. An equal number (150) of boys and girls participated in the study. From a total of 300 children, 148 (almost 50%) had parents who have NGO membership and 152 children were of parents with no NGO membership.

Table 2.1 : Distribution of sample by parents' NGO membership, sex and age

SUBJECT	12 YEARS	13 YEARS	14 YEARS	15 YEARS	16 YEARS	TOTAL
Member boy	9	24	24	13	3	73
Member girl	7	20	29	11	8	75
Non-member boy	3	29	28	12	5	77
Non-member girl	10	18	32	11	4	75
Total	29	91	113	47	20	300

Table-2.2 shows Geographical distribution of sample. As mentioned earlier the sample was selected from four greater Division of Bangladesh to obtain a representative sample. From the four greater Division, seven Districts were randomly selected. The Districts are: Narayangonj, Gazipur, Tangail, Noakhali, Sirajgonj, Jessore and Khulna. The Table-2.2 shows the number of respondents selected from each District and Division. It can be seen that the ratio of member and non-member parents of the respondents is almost equal in each of the Districts, except Narayangonj, where the NGO-member group is much smaller than the non-member group.

Table-2.2: Distribution of Sample on the basis of Geographical Location

DIVISION	DISTRICTS	NGO MEMBER	NON-MEMBER	SUB-TOTAL	TOTAL
Dhaka	Narayangonj	13	23	36	110
	Gazipur	18	16	34	
	Tangail	21	19	40	
Chittagong	Noakhali	35	35	70	70
Rajshahi	Sirajgonj	25	25	50	50
Khulna	Jessore	13	12	25	70
	Khulna	23	22	45	
Total		148	152		300

2.2 ^{Development} ^{kyoul} Construction and Field test of the tools

Most of the tools used in the present study were adapted from existing versions of valid instruments to make them more suitable for the subjects of the study. Only two instruments were ^{developed} ^{indigenous} ~~newly constructed~~ which constituted the demographic information and the knowledge test on health and social issues. Nevertheless all the tools in the study were ^{kyoul} tested before starting data collection. After having constructed and slightly modifying or in some cases translating the tools they were tested on 15 children (aged 10 to 16) in rural village named

^{kyoul}

Suborno Sara in Sirajgonj District by the researcher. While field testing the tools, the researcher ^{identified some} detected the items which were too difficult for the children of the mentioned age group to attend, items which were difficult to understand but could be attended if rephrased in a simpler language; items with which the respondents are not at all familiar or did not suit the culture of the child, etc. Moreover it was found that rural children aged 10 and 11 could not attend most of the items in all the instruments. Based on these findings the researcher made some corrections to make the instruments more suitable for application on the respondents and appropriate for the study and also defined the age range of the respondents from 12 to 16 years of age. The modifications are discussed along with the description of tools in this chapter. Thus the final versions of the instruments were ensured to be appropriate and reliable for the respondents and the purpose of the study. ^{found to be}

2.3 Description of Tools

The instruments used in the present study comprised of scales, questionnaire and tests to measure the variables under the study. The psychosocial variables measured were Self-esteem, Achievement Motivation, Problem solving ability and Health and social knowledge and Time spent in Learning, Working and Recreation. The scales and tests used to measure these variables were Hare Self Esteem Scale (HSS), Children's achievement motivation Scale, Block Design and Picture Completion sub-tests from WISC-III, questionnaire on health and social issues and Activity Profile. All the tools were field tested to see their appropriateness for the study. The tools are described in detail as follows:

2.3.1 HARE SELF-ESTEEM SCALE (HSS)

~~The author of Hare Self esteem Scale (HSS) is Bruce R. Hare (1935).~~ ^{was} The scale used to measure self-esteem of school age children 10 years and above.

✓

Although there are other more recent scales of Self-Esteem the HSS was selected because the items in this scale were found to be more suitable for the rural children in Bangladesh. The HSS was adapted in Bangla (Chowdhry, 1993). For the present study this adapted version was field-tested and its reliability was ~~further determined, which was~~ found to be satisfying at desired level.

The HSS consists of three 10-item sub-scales that are arena specific (peer, school and home). The sum of all 30 items is viewed as a general self-esteem measure. Both self-evaluative and other-evaluative items have been chosen. The items are also intended to induce respondents to report a general sense of their self-feeling within each arena. The rationale for concluding that the sum of the three sub-scales produces an overall measure of self esteem is that peer, home and school are the major areas of interaction for the child in which he or she develops a sense of self-worth. Thus they represent something close to the child's universe for self evaluation. The HSS can be administered individually or in groups. In the present study it was administered individually.

Scoring : Each item of the scale has three choices to respond: a) true; b) do not know; c) not true. The scale consists of 17 positively worded items and 13 negatively worded items. After reverse scoring of negatively worded items, the items for the subscales are summed using the following scale: a = 3, b = 2, c = 1. The three sub-scale scores are added to produce the score for the general self-esteem scale. Higher scores indicate higher self-esteem. The maximum possible score for HSS is 90 and minimum 30 points for an individual taking the test.

Reliability : No internal consistency data are reported. Test-retest correlation indicate fair stability with three month correlation ranging from .56 to .69 for the three sub-scales .74 for the general scale. The adapted version of the scale was administered on a group of 15 children within two weeks interval and the correlation of their scores was .87 ($r = .87 < 0.01$).

↓
p < .01

Validity : The HSS general scale correlated .63 with both the Coopersmith Self-esteem Inventory and the Rosenberg Self-esteem Scale, indicating excellent concurrent validity. The HSS sub-scales also correlate significantly with changes in life status and with predicted arena-specific activities (e.g. reading achievement scores with school sub-scale).

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Modification : To serve the purpose of the present study slight changes were made in the HSS. The items of the scale were translated in Bangla and to suit the culture of Bangladesh some of the items were modified. The modified scale was then pre-tested on a 15 rural children. Based on the findings the response choice was reduced to 3 categories : true = 3, do not know = 2, not true = 1 to make it simpler for the respondents of rural Bangladesh. Similarly the items which the respondents found difficult to understand were re-phrased keeping the same meaning. It was again tested on a few children (5) and made sure that the children understand and can respond to each and every item of the scale.

Materials : The scale in the form of a questionnaire and pen or pencil.

2.3.2 CHILDREN'S ACHIEVEMENT MOTIVATION SCALE (CAMS)

The ~~author of~~ Children's Achievement Motivation Scale ~~is Bernard~~ (Weiner 1970). ~~This scale is~~ ^{was} used to measure achievement motivation of children aged 6 to 14 years. The type of measure is forced choice. The ~~items on the scale were~~ ^{is based upon} derived from ^{??} a theory of achievement motivation ^{There is substantial evidence} and from empirical findings that have been shown ^{in the CAMS} to differentiate individuals high and low in achievement needs. The items tap, in part, the kind of affect (hope or fear), the direction of behavior (approach or avoidance), and the preference for risk (intermediate vs. easy or difficult) expressed in achievement situations. Data have shown that individuals high in achievement needs are "hope" oriented, approach achievement tasks, and prefer intermediate risk, while those low in achievement

Which theory
is it, McClelland's
theory
Do give reference
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needs are "fear" oriented, avoid achievement activities, and prefer easy to difficult tasks.

Reliability and Validity : Reliability data have not been collected in the original test. There have been two studies of empirical validity relating achievement motivation to causal ascriptions and to self-reward for achievement accomplishments. Males in the fifth and sixth grades scoring high on the scale ascribe success internally (to ability and effort) more frequently than low-scoring males. This pattern is not exhibited by the fifth-and sixth grade females. In addition, males in these grades scoring high on the achievement scale reward themselves more in a self-reinforcement operant setting than males scoring low on the achievement scale.

^{cam's}
 The translated version of the scale for the present study was administered on 15 children twice with an interval of two weeks and the correlation of the scores was found to be .68 ($r = .68 < 0.01$). ¹⁰

Scoring: All the items of the scale have associated forced choice from where the respondent choose the one which applies to him or her the most. The items which denotes hope, approach or intermediate risk are given a score of '2'. On the other hand, items which denotes fear, avoidance or low risk are given a score of '1'. For items number 1,3,5,6,7,9, and 10, $a=1$ and $b=2$. While for items number 2,4 and 8, $a=2$ and $b=1$ (reverse items). The scores of individual items is then summed to obtain the total score on achievement motivation. Higher score indicates high level of achievement of motivation and low scores for low level of motivation. The maximum and minimum possible score for this test are 20 and 10 respectively.

Modification: Ten items from the scale was translated into Bangla and then pre-tested on a sample of 15 rural children aged 11 to 15. On the first administration children showed no difficulty in understanding the items and

they could attend all the items without any help. Thus this scale did not require any further modification except for translation.

Materials : The scale in the form of a questionnaire and pen. *respondents' need pen or pencil to complete it.*

2.3.3. BLOCK DESIGN TEST

One of the psychosocial variables of the present study was 'Problem Solving Ability' of rural children in Bangladesh. This variable was measured by using two (out of 13) performance tests adapted from WISC-III (1991). The two subsets selected from WISC-III were culture *1 # fair* free and appropriate for application on the rural children of Bangladesh. One of these tests was the **Block Design** and the other was **Picture completion**. The norms of these selected sub-tests were not *Name ??* used in the analysis of data, *2* only the raw scores of the respondents were taken into consideration.

The Block Design test was administered in the same way as mentioned in the WISC-III manual.

Scoring : The test consists of nine blocks of the same pattern and the subject is shown 12 different designs which he or she is required to make within a time limit. The scoring depends on the completion of the design within the time limit. Different time ranges are given according to the complexity of the design. The table below shows how the timings differ for different levels of designs. The test begins with item # 3 and time recorded for completion. If item # 3 is passed in one trial then item # 1 and 2 are marked passed and given a score of 2 points for items # 1, 2 and 3. However if item # 3 is not passed in one trial the respondent gets another chance to try and the first three items are scored as 1 point each. If the child cannot pass the trial designs in two trials then the test is not administered on him or her. While conducting the test the investigator records time taken by the subject but do not score the responses. After completion of all the designs, each design is scored according to the Table-2.3.

The sum of all design scores gives the total score for the test. The test is discontinued when the child cannot make two consecutive designs within the time limit. The maximum possible score of this test is 66 with a minimum of 42 (if all the items are attended) or 0 (if none of the item can be performed correctly)

Table 2.3: Scoring Sheet of Block Design Test

Item #	Time limit (in seconds)	Total points per item			
1. (2 blocks)	-	2 (for passing with one trial)	1 (for passing with two trials)		
2. (4 blocks)	-	2 (for passing with one trial)	1 (for passing with two trials)		
3. (4 blocks)	45	2 (for passing with one trial)	1 (for passing with two trials)		
Completion time range (in seconds)					
		4 points	5 points	6 points	7 points
4. (4 blocks)	45	16-45	11-15	6-10	1-5
5. (4 blocks)	45	21-45	16-20	11-15	1-10
6. (4 blocks)	75	21-75	16-20	11-15	1-10
7. (4 blocks)	75	21-75	16-20	11-15	1-10
8. (4 blocks)	75	21-75	16-20	11-15	1-10
9. (4 blocks)	75	26-75	16-25	11-15	1-10
10. (9 blocks)	120	41-120	31-40	26-30	1-25
11. (9 blocks)	120	56-120	36-55	31-35	1-30
12. (9 blocks)	120	56-120	36-55	31-35	1-30

Materials : 9 blocks, each of them having two red sides, two white sides and four sides half-red and half-white (diagonally); booklet consisting of the patterns or designs; a stop watch to measure the time; a scoring sheet and pen/pencil.

2.3.4. PICTURE COMPLETION TEST

The Picture Completion test was also used to measure problem solving ability of subjects. This test was adapted from the Picture completion subset of WISC-III (the third edition of ~~Weschler Intelligence Scale for Children~~ (1991). The original test consists of 30 items of which some were omitted and reduced to 24 items to

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make the test culturally appropriate. In this test the respondent is required to identify the missing part of each item.

Scoring : Each of the items (picture) in the test has something missing and the subject is required to detect the missing part within 20 seconds of exposure to the picture. Each correct response gets a score of '1' and each incorrect response is scored as '0'. Thus the maximum possible score for this test is 24 and the minimum score is 0. The test is discontinued when the subject makes five consecutive wrong responses. While conducting the test the investigator just marks with tick or cross for correct and incorrect answers respectively. The responses are later scored and sum of correct responses makes the final score. The analysis is based on the final scores of the subjects.

Reliability : The adapted version was administered on 15 children twice with an interval of two weeks to test for reliability. The test-retest method of reliability was applied and the correlation showed an acceptable measure of .78 ($r = .78$).

as Picture Completion test came out to be significantly lower estimate
 $r = .78 < 0.01$ ($r = .78, p < .01$).

Modification : A slight modification of the test was made to suit the cultural context of the subjects who were rural children of Bangladesh. In order to do so a few pictures were omitted as children of rural Bangladesh were not familiar with those objects, such as, piano, bathtub, barometer, telephone, orange and supermarket. The total number of items were thus reduced from 30 (as in the original test) to 24.

Materials : A picture booklet consisting of 24 picture; scoring sheet and pen/pencil.

2.3.5. HEALTH AND SOCIAL KNOWLEDGE QUESTIONNAIRE

The knowledge on health and social issues was measured as part of cognitive domain of rural children. As NGO members receive training on various health and social issues it was assumed that their children would show to have acquired

better knowledge on these issues compared to those whose parents are not members of NGOs and do not have access to these information. Since there was no existing scale and test for this purpose a questionnaire was developed with 12 items of health and 12 items on social issues related questions. Only those issues were included on which NGO members receive training for awareness raising. The questionnaire was then given to 3 experts and tested on 15 rural children (detail is given in field testing of the tools) to see the appropriateness of the questions. A few items were found to be difficult for children to answer at all and those were omitted. On the other hand a few of them were re-phrased and the question made simpler so that children could attend them.

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Scoring : Finally the questionnaire consisted of 20 items, of which 9 were health related and 11 were on social knowledge, mainly on human rights. Each item ^{was} has to be responded by making a choice from 4 given answers (as in multiple choice test) of which only one is correct. Each correct response was scored as '1' and incorrect answers (also 'I don't know' response) obtained '0'. The maximum score for this test was 20. The total score of a subject constituted of the sum of all the items attended. Children were not given any time limit for answering the questions but reminded of time when more than 30 minutes were taken. Higher score denoted better knowledge.

Reliability and Validity : Experts opinions were taken to validate the questionnaire. ~~As for reliability~~ The final version of the questionnaire was administered (with an interval of two weeks) on 15 children and reliability obtained through the test-retest method was found to be 0.72 ($r = .72 < .01$).

Materials : The knowledge test questionnaire and pen,

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2.3.6. ACTIVITY PROFILE

In order to have an understanding of the daily life pattern of rural children and how much time they allocate in learning, working and recreation, an activity profile format was designed and applied on the respondents. The child was interviewed and asked about how he or she distributes his and her time over various activities. Afterwards the timings were categorized under the headings of learning, working and recreation and analyzed to find out the differences for different age groups, sex and as well as children of NGO members and those of non-members.

Scoring : The hours spent under each category of activities (learning, working, recreation) were counted as measures of activity.

Reliability and Validity : No validity or reliability measures were obtained done on the activity profile as the whole format had to be changed after the pilot study. It was used merely for information collection rather than measuring a variable.

Modification : Initially the format was designed in a way that the day (16 hours) was divided into eight slots, each of 2 hours and the respondent would mention the activity done during those two hours. However, this was found not to reflect a child's day appropriately and analysis would be difficult. Thus the tool was re-designed and the day was broken into six-time span, each dividing point was easy for the child to understand and respond. These were : (a) before going to school; (b) school hours; (c) after returning home from school; (d) late evening; (e) night time; (f) before going to bed. For each time span the child mentioned the kind of activities he or she was engaged in and also the hours spent for those activities.

Material : Activity profile format and pen

2.3.7. **DEMOGRAPHIC information**

A questionnaire was constructed to collect some basic information of the subject. These basic information consisted of some personal information such as age, sex, grade, roll number in the class and also information regarding family (size and type of family, parents' education) and household (source of drinking water, type of treatment taken in illness, latrine used, assets owned, etc).

2.4. **Training of the Field Investigators**

Two Field investigators were appointed to assist the researcher to collect data from different sample area. Field Investigators were selected on the basis of having Bachelors degree in Psychology as academic background, experienced in conducting research and collecting data in the area of psychology, willing to travel in different parts of the country and ability to select subjects for the study by approaching schools in different areas in rural Bangladesh. Two female investigators were finally selected for the study. Three days training were conducted for the investigators, one day for orientation on the questionnaire, another day for practical demonstration with rural children and the third day for editing and checking of the filled-in questionnaire and overall planning of the field visit.

Procedure

2.5. **Administration of the Instruments**

Altogether three months time was taken in collecting data from different places in rural Bangladesh. In total 300 children were interviewed and administered the tests and scales individually and in one day maximum 12 children could be covered.

Upon reaching a particular District, the investigators spent one day by visiting few rural high schools in the selected Union and sought permission from the school authority to collect data for the study. They explained the purpose and

strategy of research to the school authority. On approval from the school authority they set the time and number of children for interview and test administration and collected the required information on children. From next day onwards they carried out the data collection procedure as per pre-set timings. The two investigators sat in two different rooms and they mutually agreed upon the number and age-group of children each would interview and administer the tests.

Administration of the Questionnaire was done in the following way :

1. **Rapport building with the child :** A few minutes was spent in talking with the child and explaining the purpose of taking information and also explaining briefly the tasks the child would require to do.
2. **Collection of demographic information :** When the child began to respond in an easy way the investigator slowly started recording the basic information on the questionnaire.
3. **Administration of problem solving tasks :** The investigator explained the tasks to be performed by the child before administering the tests/scale.
 - a. **Administration of Block Design Test:** The investigator gave instruction as per the questionnaire and administered the test in the following order:
 - The subject was shown the blocks and explained that he or she will have to make some designs with the blocks.
 - Trial-1 (45 seconds) : The subject was shown item # 3 from the booklet and asked to make the design with the blocks. If the subject could make the design within the time limit then the time was

recorded in the record sheet (attached in the questionnaire) and given 'P' (pass) for item # 1 and 2 and then proceeded with item # 4.

If the subject made the design incorrect or exceeded the time limit then the item was marked 'f' and a second trial was taken for item # 3. In such case, 'p' was not marked for item # 1 and 2.

- Trial-2 (45 seconds) : The investigator made the design while the subject watched. The investigator then scrambled the blocks and asked the subject to try again. If the subject could make the design successfully, he or she was then asked to do item # 1 and 2. If the subject could make the two items correctly he or she obtained 'P' for the two items. Then the investigator proceeded with item # 4 onwards. The test would discontinue if the child failed the second trial, however such case were not reported in the study.
- For items # 4 to 12, the investigator kept the respective design in front of the child and asked the child to try and make the design. When the child completed the investigator recorded the time with the help of a stop watch and noted the time on the record sheet.
- If the child failed to make the designs in two consecutive trials the test was discontinued. A trial was considered as failure when either the design was incorrect or not done within the time limit.
- For items # 4 to 9, the subject was given 4 blocks and for items # 10 to 12, five more blocks were added, thus in total there were be 9 blocks to make the patterns. Timing was recorded for all the items from # 3 to 12.
- The timing was recorded in such a way so that the subject did not notice it. The subject was praised for completion of each successful trial.

- The investigator did not score the responses of the subject, it was done later by the researcher.

b. Administration of Picture Completion Test:

The picture completion test was also a problem solving task. First the investigator explained to the subject that he or she will be shown some pictures. Each of the picture had something missing and the subject was required to point out what was missing, he or she could either name the missing part or point to the missing part in the picture. The test was administered in the following way:

- A sample item (picture of a pencil) is first shown to the subject to make sure that he or she understood the task clearly.
- For each item the subject had 20 seconds to respond. Investigator measured the time with the help of a stop watch.
- If the subject failed to make the correct response for one item within the allotted time the investigator proceeded with the next item. But if the subject made five consecutive failure then the test was discontinued.
- Failure was marked either for an incorrect response or not responding within the time limit. Any item failed was not given a second chance.
- As the subject responded to the items the investigator marked the responded item with a tick or a cross mark (according to the response) on the recording sheet. The responses were later scored by the researcher.

4. Administration of Activity Profile format

The Activity Profile was a matrix in which the day is divided into six major parts : Before going to school, school hours, after school, evening time, and before

going to sleep. For each of these parts the subject mentioned the sort of activity done and time usually spent for those activities. It was administered in the following way:

- The investigator asked the subject to mention what he or she does before going to school. All the activities mentioned by the subject was noted in the format. Then the investigator asked about how much time (from what time to what time) is spent for the mentioned activities. The time was also recorded against the activity in the format.
- In the same way all the different parts of day were covered.
- Afterwards the activities were classified under three main headings: learning, working and recreation and for each the number of hours were determined. This part was done by the researcher.

5. Administration of Achievement Motivation Scale:

The achievement motivation scale is a self administered scale. The following instruction was given to the subject before he or she proceeded with the scale:

“Here are some incomplete sentences for you to complete. Each of the sentences can be completed by using either of the two choices given. You have to choose one which applies to you and describes you the most. Put a tick mark on the one you choose. You have to complete each sentence sequentially, i.e. first do number 1, then number 2, then number 3, and so on. You cannot jump any item or leave any one of them incomplete or leave an item and come back to it later. If you do not understand any word or phrase, please feel free to ask. There is no right or wrong answer, so please choose the one which applies to you the best and do them as quickly as you can.”

There is no time limit but the instruction is given in such a way that the subject does not take too long to complete all the items and at the same time

gets enough time to read and understand the sentences. There are altogether 10 items and the subject had to attend all the items. After completion of the scale, the investigator made sure that all the items have been attended, if not, the subject was requested to attend the missed one. After completion of the scale the investigator did not score the items, it was done later by the researcher.

6. Administration of Self Esteem Scale:

The self esteem scale consists of 30 items. This is also a self administered scale like the previous one. The subject was instructed in the following way:

“Here we have many sentences which describes your idea about yourself. You will have to read each sentence and think whether it is true about you or not. If the sentence describes you correctly then you put a tick mark under 'true', if you find it not describing you then put tick mark under 'not true' and if you cannot decide whether it describes you correctly or not then put the tick mark under 'I don't know'. Give your opinion for each item sequentially starting from number 1. Do not miss any item. There is no good or bad answers for these statements, the important thing is whether the statement describes you or not, therefore try to give the least number of 'I don't know' response. Once you have marked on an item please do not go back to it. Try to complete all the items as quickly as you can.”

After completion of the scale the investigator quickly checked to see whether all the items have been attempted, if not the subject was requested to do the missed item. The scoring for each item and the total scale was done afterwards by the researcher.

7. Administration of Health and Social Knowledge Questionnaire:

This is another self-administered test and there are altogether 20 items in it. The subject was instructed as follows:

“Here we have some questions on health and social issues. Each question has four answers and one of them says 'Do not know'. You have to choose one answer from the four and put a tick mark on it. Choose the one you think is the best answer for the question and try to avoid 'Do not know' as much as possible. Answer each of them sequentially and do not go back once you have answered. Please answer all the questions.”

After completion of the test the investigator checked whether all the items were attempted, if not the subject was requested to do the missed item. The scoring was done later by the researcher.

After having administered all the tests and scales the subject was thanked for his and her cooperation and time given for the research purpose.

2.6. Scoring and coding of Responses

After completing data collection from each District the investigators submitted them to the researcher. The researcher then scored all the responses (as mentioned in description of tools) accordingly and made the necessary coding for data analyses.

2.7. Data entry and analysis

Data entry for analyses was done by the researcher herself and SPSS for window package was used to do all the necessary analysis as mentioned below. Data was analyzed as follows:

- a) Chi-square test for members and non-members for demographic variables such as family type, number of siblings, parents' education, type of latrine used, source of drinking water, treatment availed, ownership of household items, etc.
- b) Three-way analyses of variance for parents' NGO membership, Age and Sex versus all the performance tasks of respondents, that is scores of

block design, picture completion, achievement motivation, self-esteem, learning hours, working hours, recreation hours, Health and Social knowledge.

- c) Coefficient of Correlation was computed to see the relationships between age, father's education, mother's education, household assets, block design, picture completion, achievement motivation, self-esteem, learning time, working time, recreation time, and health and social knowledge.

The results of the study are presented in the next chapter.

CHAPTER – III

RESULTS

RESULTS

The present study was conducted to investigate the impact of NGO interventions on psychosocial development of children in rural Bangladesh. One of the objectives of this study ^{was} ~~were~~ to compare two groups of children: Children whose parents ^{were} ~~are~~ members of NGO with those whose parents ^{were} ~~are~~ not members of NGOs in terms of their problem solving ability; self esteem; achievement motivation; health and social knowledge; and time spent in learning, working and recreation. The two groups were also compared on some household variables such as family type, parents' education, number of sibling, source of drinking water, type of latrine used, kind of treatment availed and number of household assets.

^{Gender-wise} ~~(comparison)~~ ^{was} ~~was also made between male and female respondents and also~~ ^{Gender-wise and age-wise comparison was made} ~~between five age groups (12, 13, 14, 15 and 16 years)~~ ^{between} on the same psychosocial variables mentioned above.

The instruments used to measure the variables and collect data for the study are explained in the previous chapter along with data collection procedure. The statistical techniques used for analyzing the data mainly comprised of three way analysis of variance, chi-square test and coefficient of correlation. The findings are presented in this chapter in the following order:

- NGO member and non-member comparison on household variables using chi-square test for significant difference.
- Three way analysis of variance for Age, Sex and NGO membership as independent variables and some measures on psychosocial variables as dependent variables viz. block design, picture completion, self-esteem,

achievement motivation, learning hours, working hours, recreation hours and health and social knowledge.

- Correlations between some selected variables, namely, age, parents' education, household assets, block design, picture completion, self esteem, achievement motivation, learning time, working time, recreation time and knowledge on health and social issues.

3.1. Comparison of NGO members and non-members on household variables

It was assumed that respondents whose parents are members of NGOs and those whose parents are not members of any NGOs would not differ with regard to their household and family background. In order to compare the two groups on their household and family background, the following demographic variables were considered:

- Family type
- Number of Siblings
- Father's Education
- Mother's Education
- Source of Drinking water
- Type of Latrine used
- Kind of Treatment taken during illness
- Number of household asset

Frequency count and chi-square values were computed to compare the member and non-member groups for all the above variables. The findings are presented as follows:

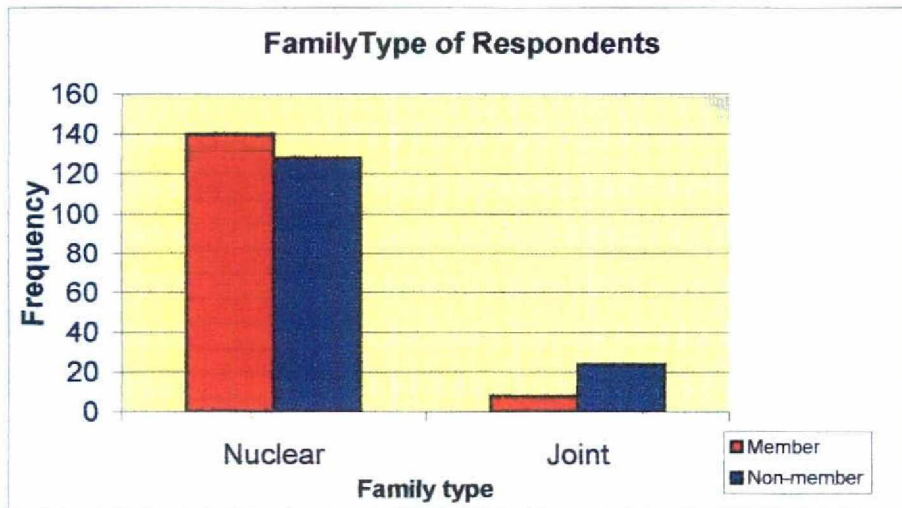
3.1.1. Family Type

Family type was classified as Nuclear and Joint family. Nuclear family meant only the immediate family members of the respondent comprising of father, mother and siblings. On the other hand joint family meant extended family members living together such as grandparents, uncle, aunts, cousins, etc. The type of family of NGO members and non-members are shown in Table 3.1.1 as reported by the respondents.

Table 3.1.1 : Family type of NGO members and non-members

Family type	Member	Non-member	Total	Chi-square	df	Sig.level
Nuclear	140	128	268	5.04	1	p<.05
Joint	08	24	32			
Total	148	152	300			

Graph- 3.1.1: Frequency of Joint and Nuclear family types of the respondents



The findings show that the number of nuclear family is much higher compared to joint family for both member and non-member groups. Respondents whose parents are NGO members have more number of nuclear family and less

number of joint family compared to those whose parents are not members. The chi-square value shows a significant difference for the two groups (chi value = 5.04; $p < .05$) indicating that the two groups differ significantly in terms of their family type, NGO members have more nuclear type of family than the non-members.

3.1.2. Number of Siblings

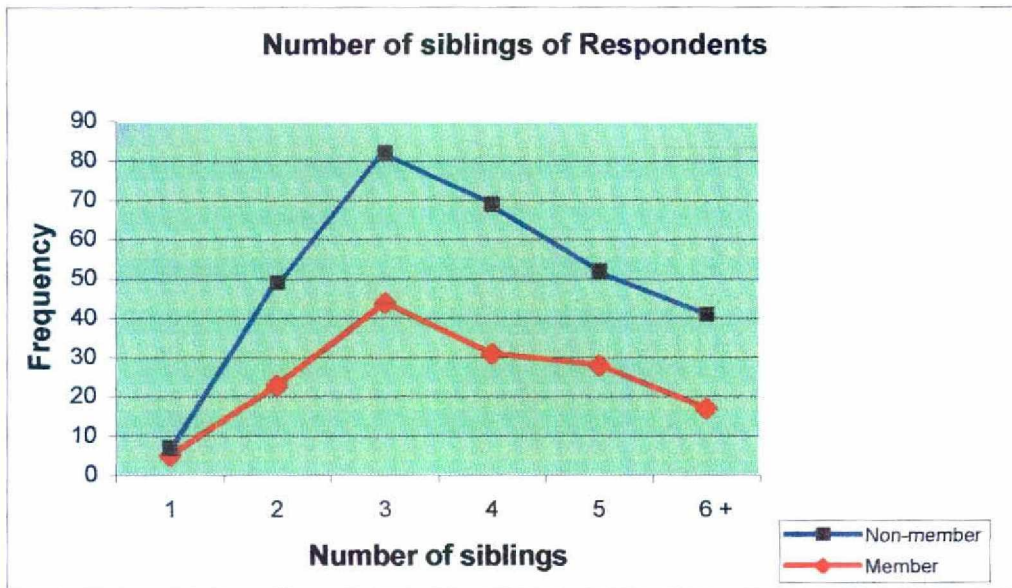
Each respondent reported the number of siblings they presently have and based on their information analysis was made to see whether there is significant difference among NGO members and non-members in their family size. This would be indicative to some extent about the birth control behaviour of members and non-members. However, conclusion cannot be drawn from this information as no other information was collected on parents' age and years of marital life. Table 3.1.2 shows the number of siblings of the respondents.

Table 3.1.2: Number of Siblings as reported by the respondents

Number of Siblings	Member	Non-member	Total	Chi-Square	df	Sig. level
1	5	2	7	4.1	5	Not significant
2	23	26	49			
3	44	38	82			
4	31	38	69			
5	28	24	52			
6 +	17	24	41			
Total	148	152	300			

From the Table 3.1.2 and the graph 3.1.2 it can be seen that for both members and non-members the highest frequency is for 3 children. The member group shows a less number of children compared to the non-member group, but both groups show a trend for small family size. No significant difference was found for the two groups.

However,

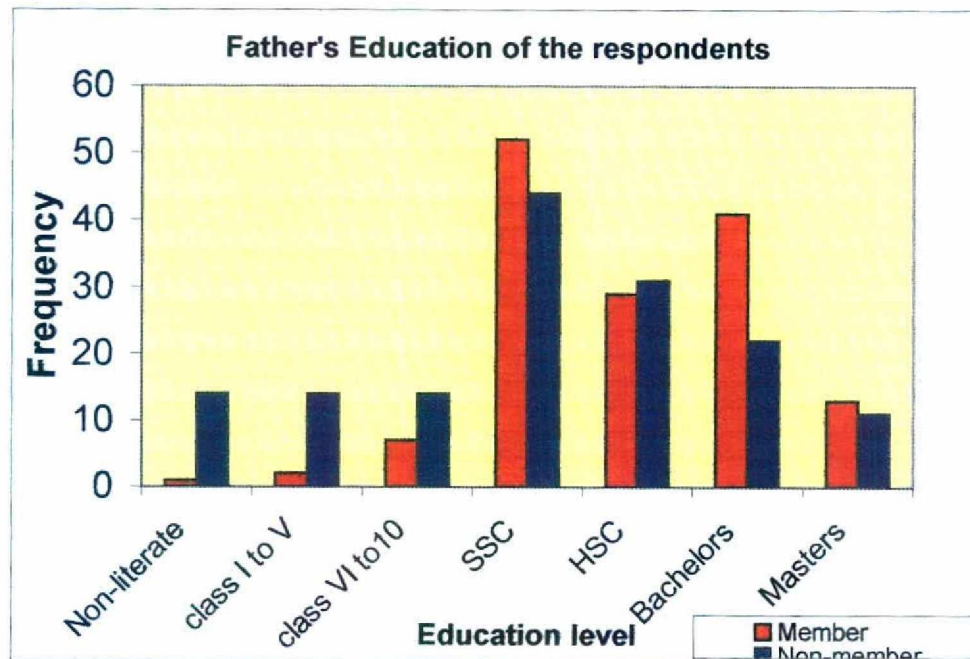
Graph- 3.1.2: Frequency of respondents against number of siblings

3.1.3. Father's Education

Information on father's education was taken from the respondents. The data has been categorized into different levels and presented in Table 3.1.3. Three respondents of the member group and two respondents of the non-member group could not provide information on their fathers' education.

Table 3.1.3 : Father's Education of Respondents

Father's Education	Member	Non-member	Total	Chi-square	df	Sig.level
Non-literate	1	14	15	29.06	6	p<.001
Class I to V	2	14	16			
Class VI to10	7	14	21			
SSC	52	44	96			
HSC	29	31	60			
Bachelors	41	22	63			
Masters	13	11	24			
Total	145	150	296			

Graph- 3.1.3: Fathers' Educational level of respondents

A significant difference (chi value = 29.06; $p < .001$) was found in fathers' education between member and non-member groups. From the Table-3.1.3 and graph 3.1.3 it can be seen that the member group has outnumbered the non-member group in higher education of fathers, that is, in SSC, Bachelors and Masters degree. *This indicates* ~~It thus means~~ that fathers who are members of NGOs have higher education compared to fathers who are not NGO members. Reportedly only a few (10) fathers of member group have attained school below SSC level, while the number is 42 for the non-member group. On the other hand 83 members have attained education above SSC as compared to 64 non-members. Highest frequency for both groups is SSC, out of 148 members, 35% fathers have passed SSC and 29% fathers of 150 non-members have passed SSC. About 5% fathers of the total sample are found to be non-literate.

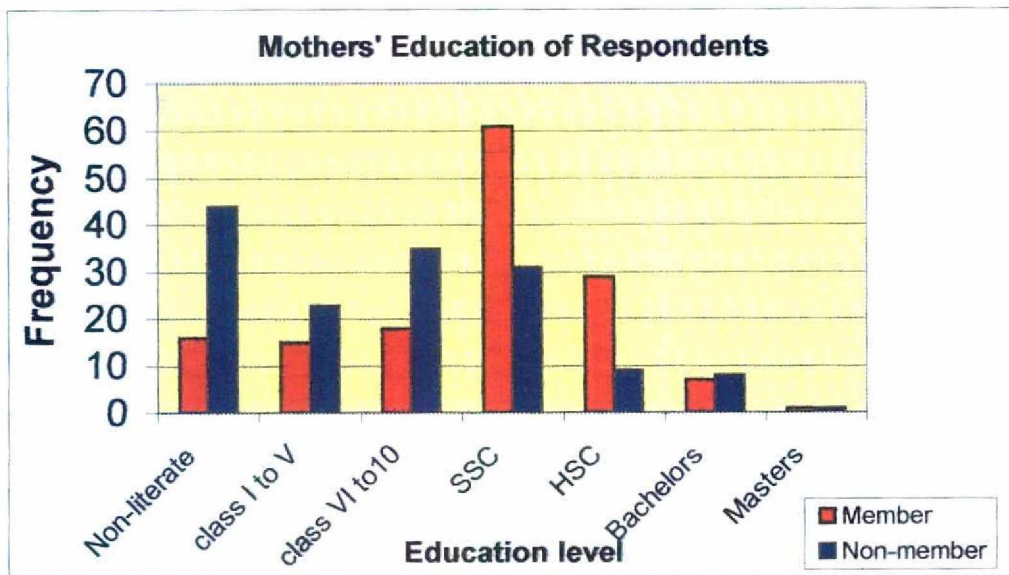
3.1.4. Mother's Education

Mothers' education of the respondents has been similarly categorized as that of fathers' education and is presented in Table 3.1.4. Two respondents, one from member group and one from non-member group could not provide information on mother's education.

Table 3.1.4 : Mother's Education of Respondents

Mother's Education	Member	Non-member	Total	Chi-square	df	Sig.level
Non-literate	16	44	60	40.99	6	p<.001
Class I to V	15	23	38			
Class VI to10	18	35	53			
SSC	61	31	92			
HSC	29	9	38			
Bachelors	7	8	15			
Masters	1	1	2			
Total	147	151	298			

Graph- 3.1.4: Mothers' Educational level of respondents



Findings on mothers' education show almost a similar pattern as that of fathers' education of member and non-member groups. The two groups differ significantly on respondents' mothers' education (chi value = 40.99; df = 6; $p < .001$). The highest frequency of non-member mothers has been found for non-literate (29%) compared to 11% ^{mothers} of the member group. For class-I to 10, the non-member mothers outnumbered the member mothers while the reverse is seen for SSC and HSC. For higher education, Bachelors and Masters, both groups are almost equal in number. In total about 20% mothers are found to be non-literate.

In order to have an idea on the life style of the respondents a few variables were considered on their daily life practice such as source of drinking water, kind of latrine they use, treatment they avail in illness and number of household items they possess to have a comfortable life. The member and non-members groups were compared on these variables and the findings are presented as follows:

3.1.5. Source of Drinking water

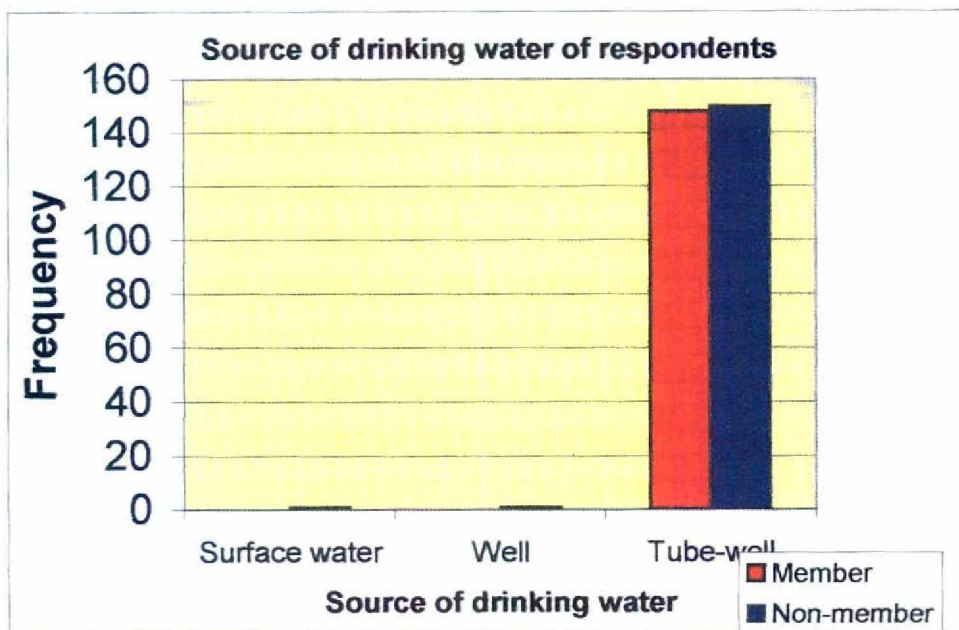
Source of drinking water would indicate the awareness of the respondents' family regarding their knowledge and practice of safe drinking water. Water from tube-well (arsenic free) and covered well are most reliable sources of drinking water for the rural people. Table 3.1.5 shows the source of drinking water of member and non-member groups.

Table : 3.1.5. Source of Drinking water of Respondents

Source of drinking water	Member	Non-member	Total	Chi-square	df	Sig.level
River / Canal / Pond	-	1	1	1.33	2	Not significant
Well	-	1	1			
Tube-well	148	150	298			
Total	148	152	300			

The findings show that a high percentage (98.6%) of the respondents drink water from the tube-well. The two groups, member and non-member do not differ significantly in their source of drinking water. Provided that the water is arsenic free tube-well is one of the safest sources of water for drinking purpose. Only one respondent out of 150 of the non-member group, and none from the member group, reported to use surface water for drinking purpose.

Graph-3.1.5: Source of drinking water in the Households of Respondents



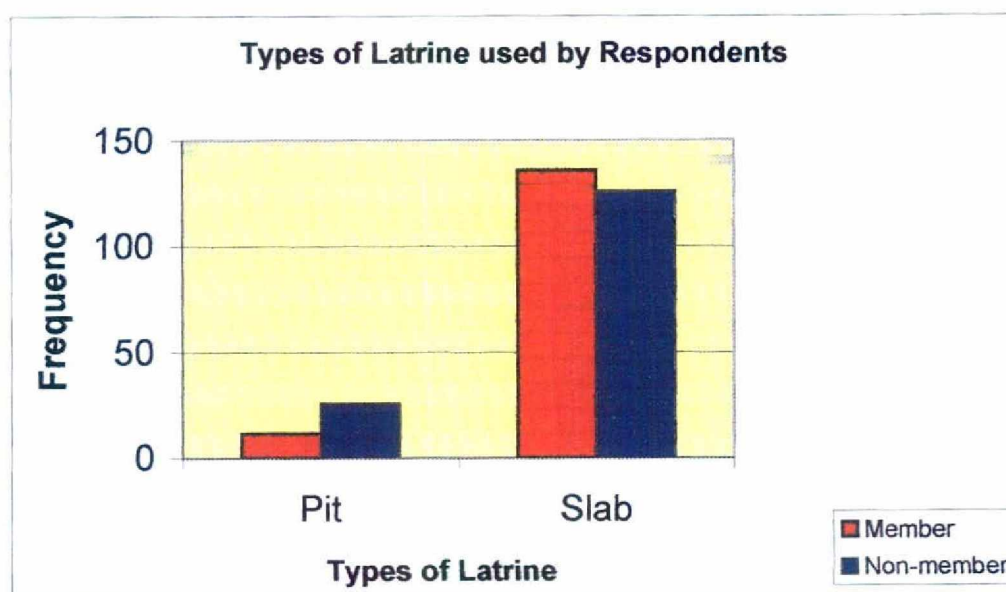
3.1.6. Type of Latrine used

Rural people use two types of latrines, pit and slab. The latter is more hygienic than the former but it also costs more. Although the slab latrine cost more it can be used for a longer time and prevents spreading of diseases more effectively than pit latrine. Table 3.1.6 reveals the type of latrine used by the respondents of the two groups.

Table 3.1.6 : Type of Latrine used by the respondents

Type of Latrine	Member	Non-member	Total	Chi-square	df	Sig. level
Pit	12	26	38	3.01	1	non-significant
Slab	136	126	262			
Total	148	152	300			

The data presented show that a high percentage of the respondents (87%) are in practice of using slab latrine. The member group shows slightly more practice (90.6%) compared to the non-member group (84%), but the two groups do not differ significantly.

Graph- 3.1.6: Frequency of respondents using different types of latrines

3.1.7. Kind of Treatment taken during illness

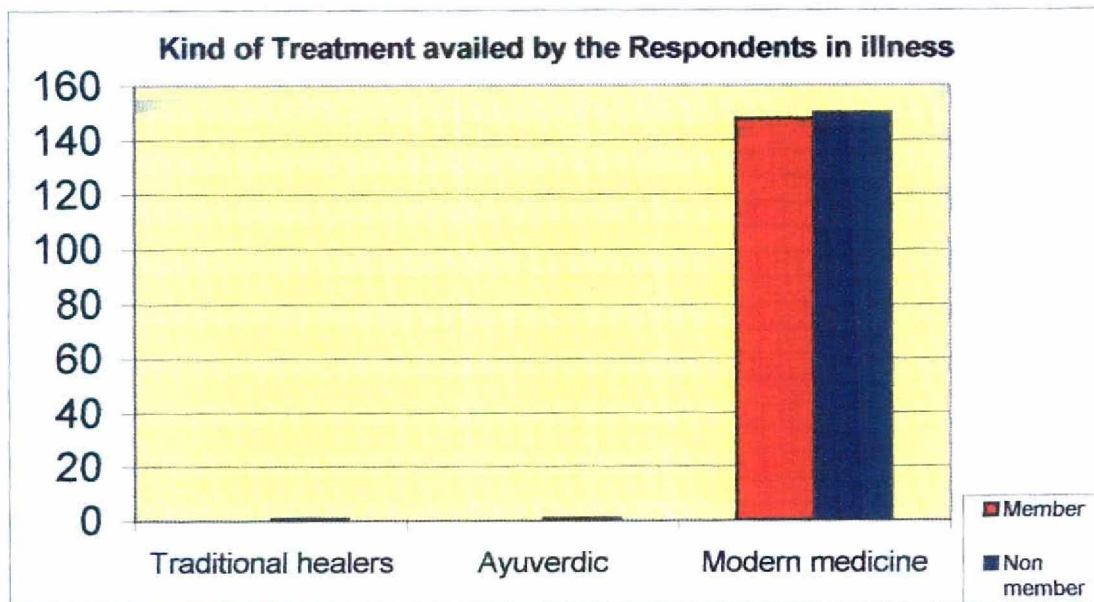
For treatment in illness rural people have different options, they may go for herbal treatment (ayurvedic) and homeopathy or to modern medicine store and physicians or to traditional healers (jhar fuk/exorcism). The most non-scientific of these practices is the traditional healer which often even puts the patient's

condition into danger. The most reliable of these practices is the modern medicine which include going to doctors, hospital, dispensary, etc for treatment purpose. Table 3.1.7 presents respondents' practice of getting treatment when ill.

Table 3.1.7 : Kind of Treatment taken in illness by Respondents

Kind of Treatment	Member	Non-member	Total	Chi-square	df	Sig.level
Traditional healers	0	1	1	2.01	2	non-significant
Ayuverdic	0	1	1			
Modern medicine	148	150	298			
Total	148	152	300			

Graph- 3.1.7: Treatment availed during illness by frequency of respondent



Both member and non-member groups show their awareness with regard to their practices of treatment availed in illness. Hundred percent of the member group and 98.6% of the non-member group reported to avail modern medicine for getting treatment in illness. This also indicates the reduction of dependency

on the traditional medicine practices, not only for the traditional healers but also for the herbal/ayurvedic approaches (some of which are believed to be very effective). Thus the findings show that the two groups do not differ significantly in their practices of treatment availed in illness.

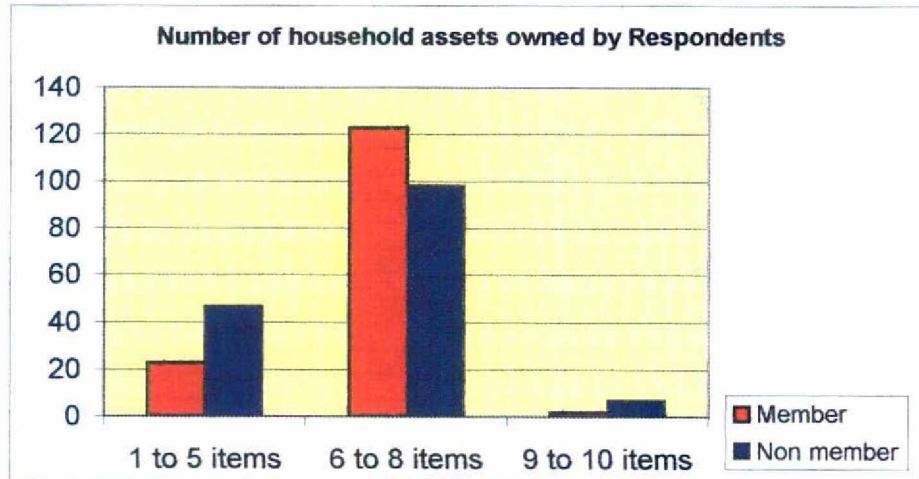
3.1.8. Number of household asset

Ownership of household assets indicate to some extent the economic condition of the household as well as degree of comfortable life led by the household members. The present study considered a few household items that are common in the rural households and their possession also indicate the economic condition of the households. The selected items were table, chair, bed, wardrobe, tube-well, radio, bi-cycle, motorcycle, sewing machine, cow and chicken. The respondents identified the items owned by their families. The number of items owned by the respondents is presented in Table 3.1.8.

Table-3.1.8: Number of household assets owned by respondents' families

Number of household assets owned	Member	Non-member	Total	Chi-square	df	Significance
1 to 5 items	23	47	70	15.05	7	p<.05
6 to 8 items	123	98	221			
9 to 10 items	2	7	9			
Total	148	152	300			

The findings show that out of 300 households 74% respondents own 6 to 8 items, 23% own 1 to 5 items (minimum number owned is 3 items) and only 3% owns 9 to 10 items. The pattern is similar in both the members and non-members groups. Further it is revealed that the number of household owning 6 to 8 items is higher for the member group (82%) than the non-member group (65%). On the other hand, the reverse is viewed for ownership of 1 to 5 items, 15% of member group and 31% of non-member group.

Graph-3.1.8: Ownership of Household Assets

The difference between the two groups, member and non-member, in terms of owning household assets was found to be significant (chi square value =15.05, $df = 7$; $p < .05$) where member groups owned a greater number of household assets indicating better economic condition and more comfortable life.

Thus the assumption that the member and non-member groups of respondents do not differ significantly in their household background was found to be only partially true. The two groups were found to differ significantly in terms of family type, parents' education and number of household items.

3.1. Three way analysis of variance of Age, Sex and Parents' NGO membership by psychosocial variables

The psychosocial variables considered in the study were measured in interval scale of measurement and thus three-way analysis of variance was possible to apply in analyzing the data for Age, Sex and Parents' NGO membership of the respondents. The assumption was that the three groups did not differ in terms of:

- problem solving ability;
- achievement motivation;
- self esteem;
- knowledge on social and health issues; and
- time spent in learning, working and recreation.

The findings of the statistical analyses are presented in this section as follows.

3.2.1 Problem Solving Ability

The problem solving ability of the respondents was measured by using two tests, Block design and Picture completion. Both the tests were adapted from WISC-III sub-tests (revised version of 1991) and both of were individually administered to 300 respondents. Three-way analysis of variance was applied to the scores obtained by respondents to see whether the respondents differed in age, sex and parents' NGO membership with regard to their performance in block design and picture completion. The findings are presented in Tables 3.2.1 and 3.2.2 for block design and picture completion respectively.

Table 3.2.1.a : Three way analysis of variance of Block Design by Age, Sex and Parents' NGO membership

Source of Variance		Sum of Squares	df	Mean Square	F value	Sig.
Main Effects	(Combined)	2271.554	6	378.592	7.056	
	Age	199.086	4	49.772	.928	.448
	Sex	833.752	1	833.752	15.539	.000
	Membership	1242.043	1	1242.043	23.148	.000
2-way interaction	(Combined)	1070.272	9	118.919	2.216	
	Age by Sex	373.689	4	93.422	1.741	.141
	Sex by Membership	631.278	1	631.278	11.765	.001
	Membership by Age	191.844	4	47.961	.894	.468
3-way interaction	Age by Sex by Membership	235.186	4	58.797	1.096	.359
Residual		15023.9	280	53.657		
Total		18600.9	299	62.210		

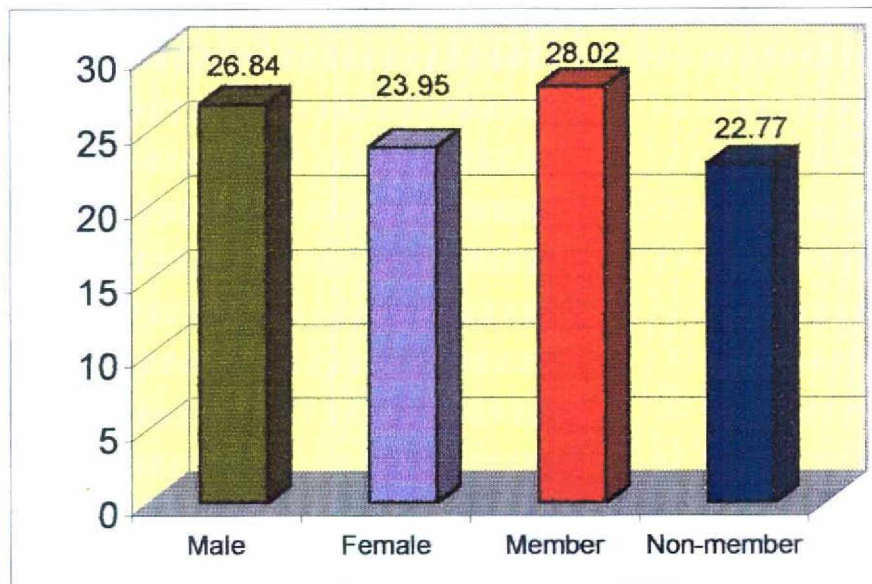
The findings indicate that sex and parents membership in NGOs have influence over respondents' performance in the block design test. A significant difference was found for male and female respondents ($F=15.54$, $df=1, 280$; $p<.000$) and for the member and non-member groups ($F=23.15$, $df=1, 280$; $p<.000$). The interaction effect of sex and parents' NGO membership was also found to be significant ($F=11.77$, $df=1, 280$; $p<.001$).

Table 3.2.1.b: Mean values of Block Design by Sex and Parents' NGO Membership

Sex	Member	Non-member	Combined Mean (for male and female)
Male	31.18	22.50	26.84
Female	24.85	23.04	23.95
Combined Mean (member and non-member)	28.02	22.77	

Table 3.2.1.b shows the mean values of Block Design test for Sex and Parents' NGO membership. The mean values of both male and female respondents of the member group scored higher (mean value = 28.02) than those of the non-member group (mean value = 22.77). On the other hand the male respondents scored higher (mean value = 26.84) than the female respondents (mean value = 23.95). The graph 3.2.1.a shows the comparison of mean values of the different groups with significant difference on mean values.

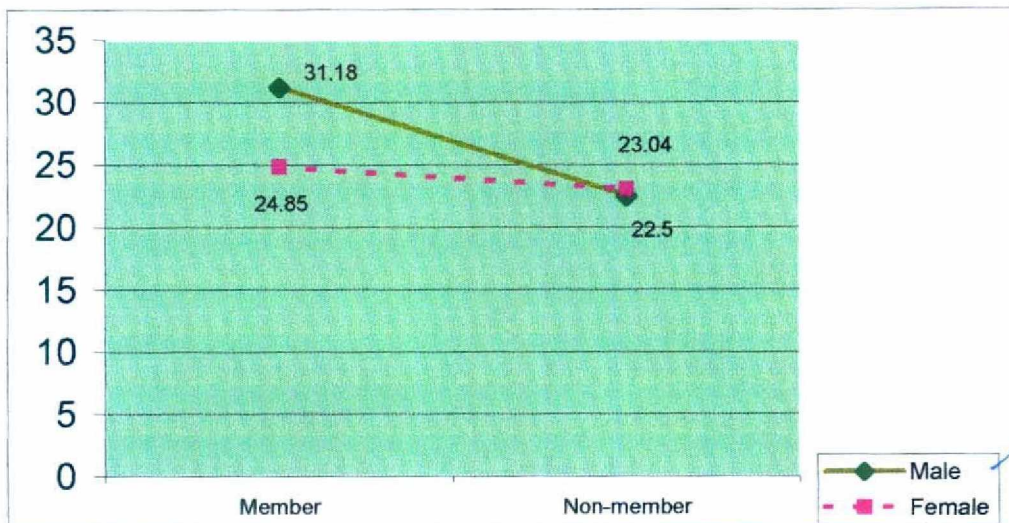
Graph 3.2.1a: Mean values of Block Design by Sex and Parents' NGO Membership



From the Table of mean values (3.2.1.b) and graph-3.2.1.b it can be seen that the male respondents of the member group obtained the highest average score (31.18) followed by female respondents of member group (24.85). But in the non-member group, male respondents scored less (22.50) than the female respondents (23.95). The difference between male of member and non-member groups is much greater than the difference between female of member and non-

member group. The significant interaction effect obtained for sex and parents' NGO membership on block test is presented in graph 3.2.1.a. below.

Graph 3.2.1b: Interaction Effect between Sex and Parents' NGO membership (Block Design)



??
is it in
girls
& boys
P. check
??

Age was not found to have any significant effect on the performance of block design. However, ^{in scores} a rise ^{is seen} for the older male groups, while ^{there is} a decline ^{in the scores} seen ^{up} for the female respondents, and ^{the} decline is more for the non-member female respondents (mean values presented in annexure iii.).

The result for picture completion task shows (Table-3.2.2.a) that respondents of member and non-member groups differ significantly in their performance ^{between} (F=32.84; df =1, 280; p<.000). A significant interaction effect was found Sex and Parents' NGO membership (F = 6.96; df =1, 280; p<.009). Table 3.2.2.b shows the mean values of picture completion test for Sex and Parents' NGO membership.

Table 3.2.2.a : Three way Analysis of Variance of Picture Completion by Age, Sex and Parents' NGO membership

Source of Variance		Sum of Squares	df	Mean Square	F value	Sig.
Main Effects	(Combined)	685.166	6	114.194	7.130	
	Age	138.059	4	39.515	2.155	.074
	Sex	10.758	1	10.758	.672	.413
	Membership	526.046	1	526.046	32.844	.000
2-way interaction	(Combined)	359.028	9	39.892	2.491	
	Age by Sex	104.314	4	26.078	1.628	.167
	Sex by Membership	111.461	1	111.461	6.959	.009
	Membership by Age	111.586	4	27.896	1.742	.141
3-way interaction	Age by Sex by Membership	17.211	4	4.303	.269	.898
Residual		4484.631	280	16.017		
Total		5546.037	299	18.549		

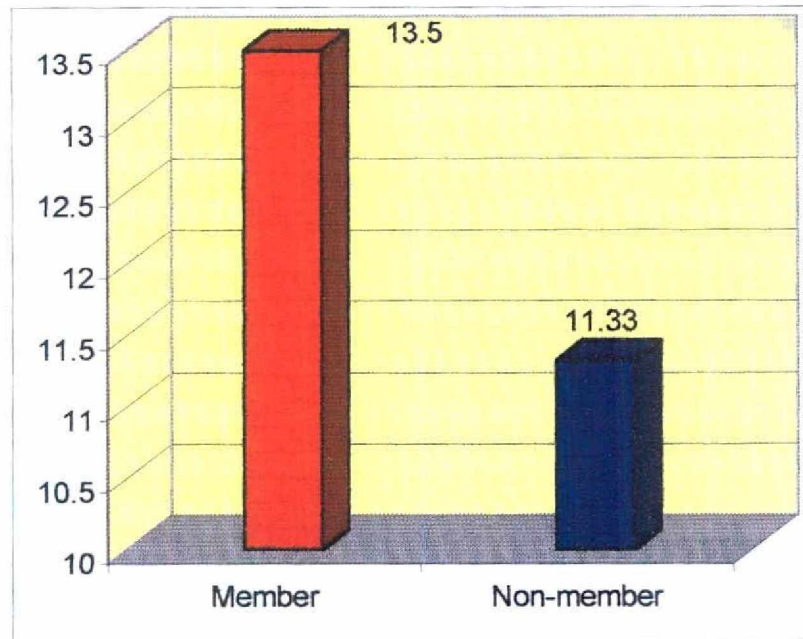
Table 3.2.2.b. : Mean values of Picture Completion by Sex and Parents' NGO membership

Sex	Member	Non-member	Combined Mean (male and female)
Male	14.15	10.77	12.46
Female	12.84	11.88	12.36
Combined mean (member and non-member)	13.50	11.33	

The mean value table (3.2.2.b) shows both male and female of the member group scored higher than those of non-member group. The mean value member group is 13.50 ^{compared to 11.33} and for non-member group it is 11.33. The graph 3.2.2.a. presents the comparison of the mean values of member and non-member groups of respondents.

Higher (M = 13.50)

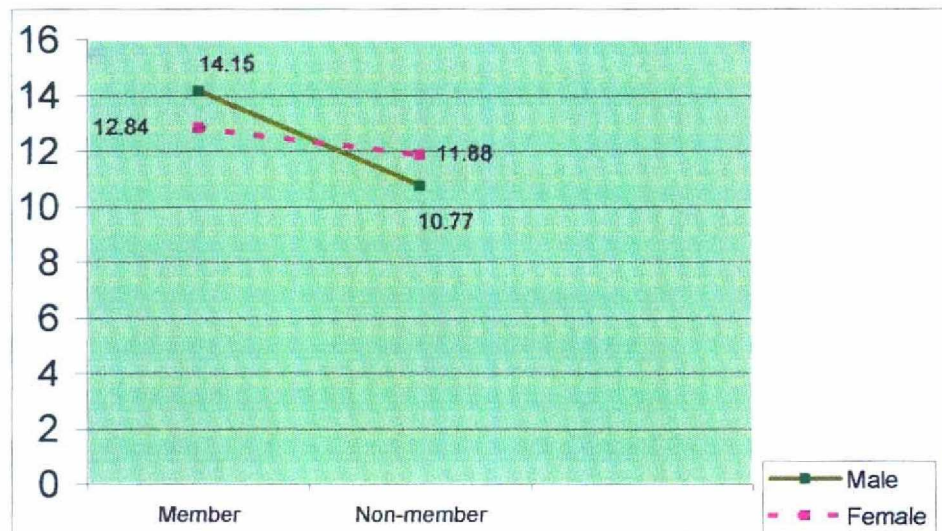
Graph 3.2.2a : Mean Values of Parents' NGO membership (Main Effect) on Picture Completion Test



The mean value table (3.2.2.b) reveals that male respondents of member group performed better ^(M = 14.15) than female respondents (mean values ~~14.15~~ and ^{M = 12.84} respectively). But ^{However,} the reverse was found for non-member group where female respondents performed better ^(M = 11.88) than male respondent (mean values ~~11.88~~ and ^{M = 10.77} respectively). This interaction effect of sex and parents membership in NGO was found to be significant is presented in graph 3.2.2.b.

^{However,} Age was not found to have any significant effect on performance on picture completion task. No other interactions showed any significant effect on picture completion task.

Graph 3.2.2b : Interaction Effect of Sex and Parents NGO membership on Picture completion test



The results obtained for problem solving tasks thus indicate that respondents of member and non-member groups differed significantly in their performance and respondents of member group performed better than those of the non-member group. Significant difference was also found for male and female respondents for one of the problem solving tasks, i.e. block design where male respondents performed better than female respondents. In both the problem solving tasks significant interaction effect were found for Sex and Parents' NGO membership indicating that Sex or parents' membership in NGO is not the sole determinant for variance in performance of the problem solving tasks. In both the tasks male respondent performed better than female respondents in member groups and female respondents performed better than male in non-member group.

3.2.3. Achievement Motivation

The achievement motivation of the respondents was measured by using Bangla version of Children's Achievement Motivation Scale administered individually on a sample of 300 respondents. The responses of the respondents were analyzed by three way ANOVA to find out whether there is any significant difference in age, sex and parents' NGO membership with regard to achievement motivation of the rural children. The finding of ANOVA is presented in Tables 3.2.3.a.

The findings of the three way analyses of variance show that only Sex has a significant main effect ($F=10.49$; $df = 1, 280$; $p < .01$) on Achievement Motivation of the respondents. Table 3.2.3.b. presents the mean values of achievement motivation for male and female respondents followed by graph 3.2.3. The average score of male respondents (15.19) was found to be higher than that of female respondents (14.63), indicating that rural male children have greater urge to achieve than female children.

Except for Sex no other variables (age and parents' NGO-membership) showed significant effect on achievement motivation of the respondents. Significant interaction effect was not obtained for Achievement Motivation.

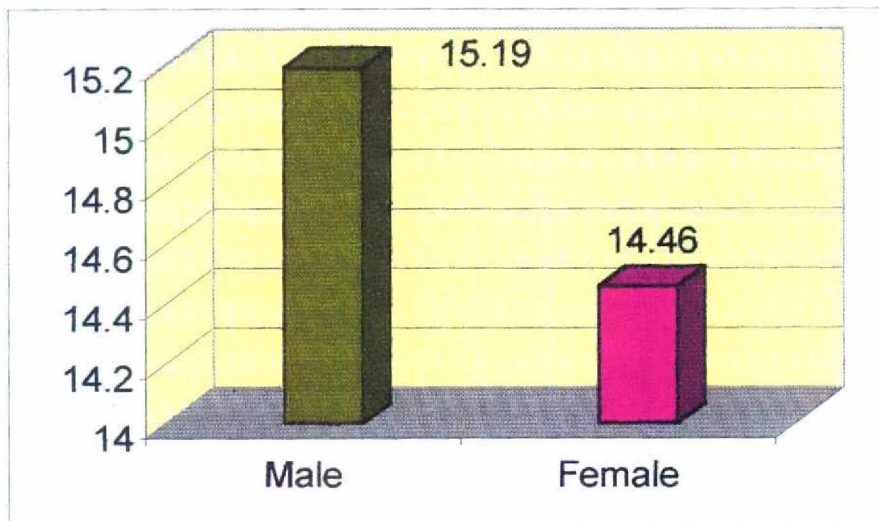
Table 3.2.3.a : Three way Analysis of Variance of Achievement Motivation by Age, Sex and Parents' NGO membership

Source of Variance		Sum of Squares	df	Mean Square	F value	Sig.
Main Effects	(Combined)	36.543	6	6.090	2.565	
	Age	9.994	4	2.498	1.052	.381
	Sex	24.918	1	24.918	10.494	.001
	Membership	3.975	1	3.975	1.674	.197
2-way interaction	(Combined)	23.319	9	2.591	1.091	
	Age by Sex	10.363	4	2.591	1.091	.361
	Sex by Membership	.110	1	.110	.046	.830
	Membership by Age	15.248	4	3.812	1.605	.173
3-way interaction	Age by Sex by Membership	18.407	4	4.602	1.938	.104
Residual		664.861	280	2.375		
Total		743.130	299	2.485		

Table 3.2.3.b : Mean values of Achievement Motivation by Sex

Sex	Mean values
Male	15.19
Female	14.63

Graph 3.2.3: Mean values of Achievement Motivation by Sex (Main Effect)



3.2.4. Self Esteem

Self-esteem was considered as one of the psychosocial variables in the present study and it was measured by using Bangla version of Hare's Self Esteem Scale individually administered on the respondents. Three-way analysis of variance was applied to see whether the different age groups, sex groups and membership groups differ significantly in their self-esteem. The findings of 3-way ANOVA is presented in Table 3.2.4.

Table 3.2.4.a: Three way Analysis of Variance of Self Esteem by Age, Sex and Parents' NGO membership

Source of Variance		Sum of Squares	df	Mean Square	F value	Sig.
Main Effects	(Combined)	68.168	6	11.361	.240	
	Age	46.038	4	11.509	.243	.914
	Sex	.687	1	.687	.014	.904
	Membership	21.272	1	21.272	.449	.504
2-way interaction	(Combined)	365.795	9	40.644	.857	
	Age by Sex	173.308	4	43.327	.914	.456
	Sex by Membership	140.932	1	140.932	2.972	.086
	Membership by Age	100.668	4	25.167	.531	.713
3-way interaction	Age by Sex by Membership	333.607	4	83.402	1.759	.137
Residual		13277.8	280	47.421		
Total		14045.4	299	46.975		

The findings reveal that there is no significant difference in self-esteem among the different groups of respondents. The interaction effect of the different groups was also not found to be significant in relation to self-esteem of the respondents.

3.2.5 Health and Social Knowledge

The different groups of respondents were tested by applying a multiple-choice questionnaire for their knowledge in health and social issues. Three way analysis of variance was applied to the scores of the respondents to determine whether there is any significant difference in the knowledge on health and social issues between different age groups, male and female and between children whose parents are NGO members and those whose parents are not. The analysis is presented in Table 3.2.5.a

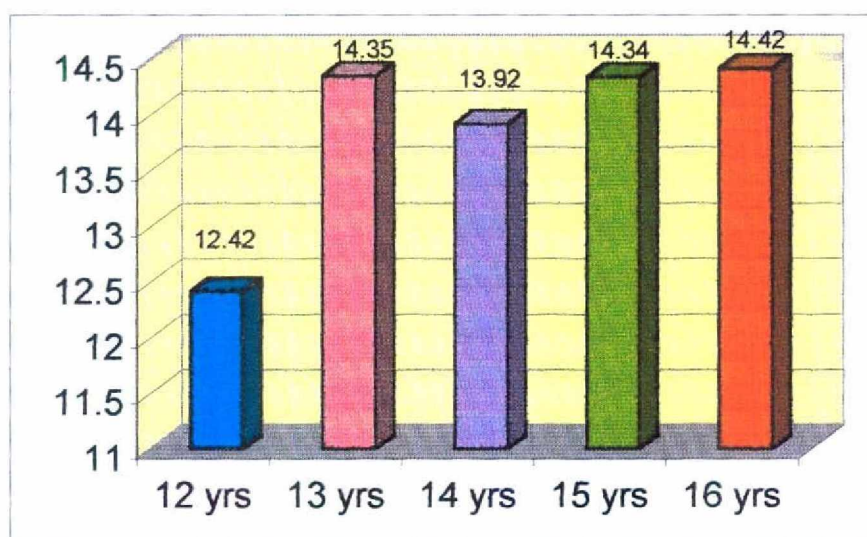
Table 3.2.5.a: Three way Analysis of Variance of Knowledge on Health and Social Issues by Age, Sex and Parents NGO-membership

Source of Variance		Sum of Squares	df	Mean Square	F value	Sig.
Main Effects	(Combined)	161.829	6	26.971	3.681	
	Age	79.960	4	19.990	2.728	.030
	Sex	69.379	1	69.379	9.469	.002
	Membership	2.370	1	2.370	.324	.570
2-way interaction	(Combined)					
	Age by Sex	11.886	4	2.972	.406	.805
	Sex by Membership	5.330	1	5.330	.728	.394
	Membership by Age	43.696	4	10.924	1.491	.205
3-way interaction	Age by Sex by Membership	12.035	4	3.009	.411	.801
Residual		2051.456	280	7.327		
Total		2295.237	299	7.676		

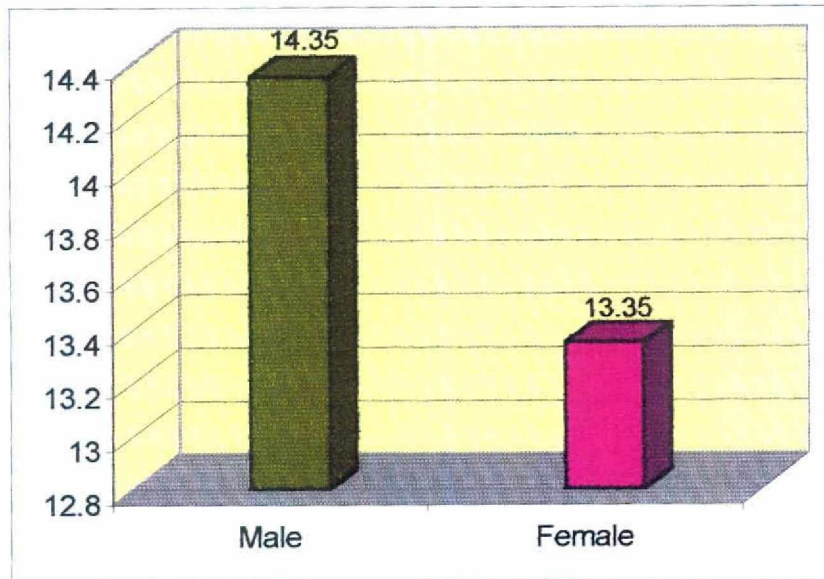
Significant main effects of age ($F=2.73$, $df = 4, 280$; $p<.03$) and sex ($F=9.47$, $df = 1, 280$; $p<.00$) was found for health and social knowledge among the respondents. Significant difference was not found for NGO-member and non-member groups. No interaction effect was found to be significant for the knowledge test. The mean values of knowledge test for Sex and Age is presented in Table 3.2.5.b. The results reveal that knowledge on Health and Social issues increase with age (graph-3.2.5.a); the mean value is 12.92 for 12 years olds and 14.42 for the 16 years olds.

Table 3.2.5.b : Mean Values of Knowledge by Age and Sex

Age	Male	Female	Combined Mean (age groups)
12 years	12.78	12.07	12.42
13 years	14.34	13.97	14.15
14 years	14.52	13.32	13.92
15 years	14.86	13.83	14.34
16 years	15.27	13.57	14.42
Combined Mean (male and female)	14.35	13.35	

Graph 3.2.5.a: Mean Values of Knowledge test by Age of respondents

The male respondents of both member and non-member groups show higher score (14.35) than female respondents (13.35). Graph 3.2.5.b. shows the comparison of mean values for Sex on knowledge test.

Graph 3.2.5.b : Mean Values of Knowledge by Sex of respondents

3.2.6. Time spent in Learning

Hours of learning were compared among male and female respondents, between different age groups from age 12 to 16 years and between children whose parents are and are not members of NGOs. The learning hours in this study meant number of hours spent for learning schoolwork inclusive both inside and outside the school. Learning outside the school meant doing school task at home and also with private tutor. Tables 3.2.6.a presents the 3-way Analysis of Variance on learning hours for the three groups of respondents.

Table 3.2.6.a : Three way Analysis of Variance of Learning hours by Age, Sex and Parents' NGO membership

Source of Variance		Sum of Squares	df	Mean Square	F value	Sig.
Main Effects	(Combined)	48.616	6	8.103	3.159	
	Age	43.081	4	10.770	4.199	.003
	Sex	5.431	1	5.431	2.118	1.47
	Membership	.996	1	.996	.388	.534
2-way interaction	(Combined)	29.077	9	3.231	1.260	.259
	Age by Sex	8.327	4	2.079	.811	.519
	Sex by Membership	12.439	1	12.439	4.850	.028
	Membership by Age	4.288	4	1.072	.418	.796
3-way interaction	Age by Sex by Membership	37.388	4	9.347	3.644	.007
Residual		718.141	280	2.565		
Total		833.222	299	2.787		

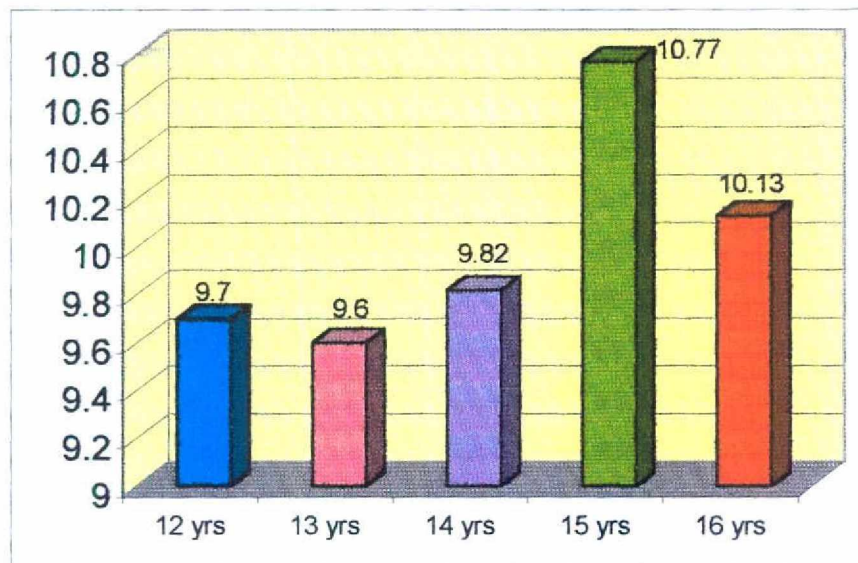
The findings presented in Table 3.2.6.a show significant difference in learning hours for age ($F=4.199$; $df = 4, 280$; $p<.00$). It also shows significant 2-way interaction effect for Sex and Parents' NGO membership ($F=4.85$; $df = 1, 280$; $p<.03$) and significant 3-way interaction effect for Age, Sex and Parents' NGO membership ($F = 3.64$; $df = 4, 280$; $p<.07$).

Table 3.2.6.b : Mean Values of Learning Hours by Age, Sex and Parents' NGO membership

Age	Member		Non member		Combined mean
	Male	Female	Male	Female	
12 years	9.83	9	9	10.95	9.7
13 years	9.44	9.58	10.17	9.22	9.6
14 years	9.46	10.03	10.7	9.08	9.82
15 years	11.25	10.63	10.31	10.9	10.77
16 years	10.33	10	10.2	10	10.13
Combined mean	10.06	9.85	10.08	10.03	

The mean values show that learning hours increases with increased age groups, for both male and female as well as for member and non-member groups. The mean learning hours is seen highest for 15 years olds (10.77) and lowest for 13 years olds (9.6). Graph 3.2.6.a shows the mean values of average learning hours for the different age groups from 12 to 16 years.

Graph 3.2.6.a: Mean Values of Learning Hour by Age



From the table of mean values of learning hours (table 3.2.6.b) it is also seen that the difference of average learning hours for female respondents of member and non-member group is much greater than that of male respondents and therefore a significant effect of sex and parents' NGO membership was found for the learning hours indicating that the learning hours differ as a function of both sex and parents' member in NGO. The Graph 3.2.6.b. presents the interaction pattern of sex and parents' NGO membership on learning hours of respondents.

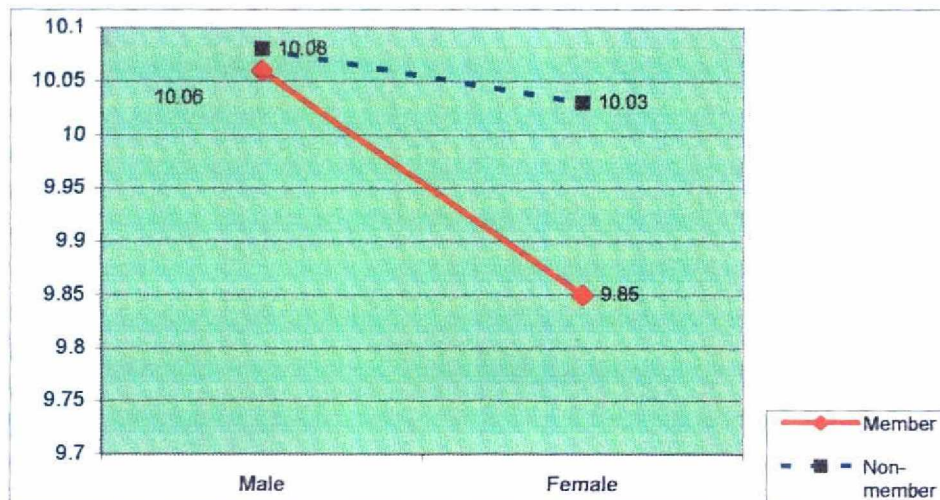
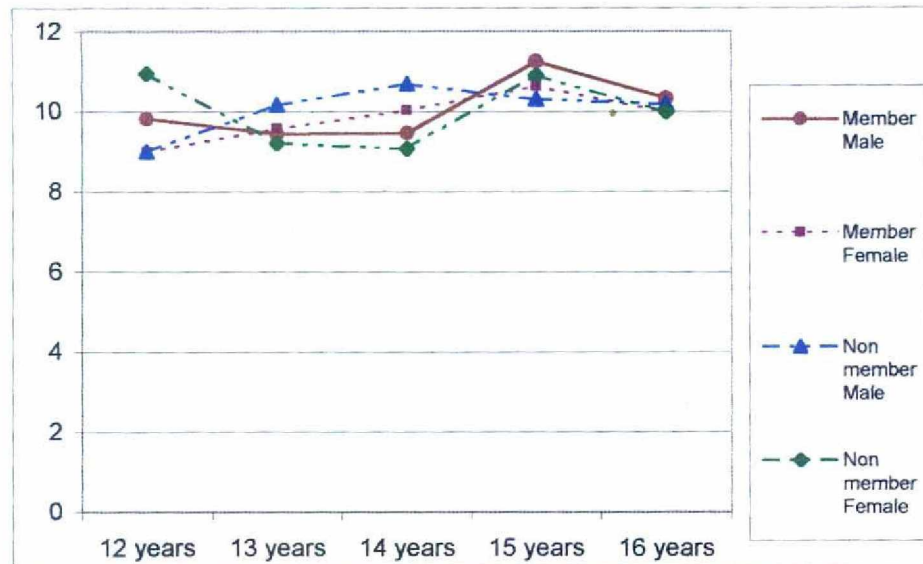
Graph 3.2.6.b: Mean Values of Learning Hours by Sex and Membership

Table 3.2.6.a. also shows three-way significant effect of age, sex and parents' NGO membership on learning hours of the respondents. Thus it means that hours spent on learning varies with sex and parents' membership in different ages. Female respondents of non-member group and male respondents of member group show a similar pattern, that is, the number of learning hours drops at the age 13 and 14 and then rises at 15 and drops slightly at 16 years of age. On the other hand, female respondents of member group and male respondents of non-member group show a more or less similar pattern. Their learning hours gradually increases from 12 to 14 years of age (up to 15 years for female respondents of member group) then gradually drops at the age of 16 years. Most respondents were found to spend the highest number of hours in learning at the age of 15 years. Graph 3.2.6.c shows the interaction pattern of age, sex and parents' NGO membership on learning hours of respondents.

Graph 3.2.6.c: Mean Values of Learning hours by Age, Sex and Parents' NGO membership



However significant main effects were not found for parents' NGO membership and sex on learning hours.

3.2.7. Time spent in Work

The different groups of respondents were compared in their time spent in working. Here work meant unpaid domestic work, mostly to help and contribute in the household chores, for examples, washing clothes, making beds, cleaning rooms and yard, watering garden, feeding cows, looking after chicken and goats, running errand, helping in the kitchen, etc. The findings of three way analysis of variance for the three groups of respondents is presented in Tables 3.2.7.a.

The findings show significant main effects for age ($F = 3.27$; $df = 4, 280$; $p < .01$), sex ($F = 66.76$; $df = 1, 280$; $p < .00$) and parents' NGO membership ($F = 7.11$; $df = 1, 280$; $p < .01$) on working hours of respondents. Significant interaction

effect was found for age and sex of the respondents ($F = 5.92$; $df = 1, 280$; $p < .00$).

Table 3.2.7.a : Three way Analysis of Variance of Working Hours by Age, Sex and Parents' NGO membership

Source of Variance		Sum of Squares	df	Mean Square	F value	Sig.
Main Effects	(Combined)	164.413	6	27.402	14.641	
	Age	24.483	4	6.121	3.270	.012
	Sex	124.943	1	124.943	66.759	.000
	Membership	13.307	1	13.307	7.11	.008
2-way interaction	(Combined)	55.679	9	6.187	3.306	
	Age by Sex	44.303	4	11.076	5.918	.000
	Sex by Membership	6.371	1	6.371	3.404	.066
	Membership by Age	12.393	4	3.098	1.655	.161
3-way interaction	Age by Sex by Membership	8.325	4	2.081	1.112	.351
Residual		524.032	280	1.872		
Total		752.449	299	2.517		

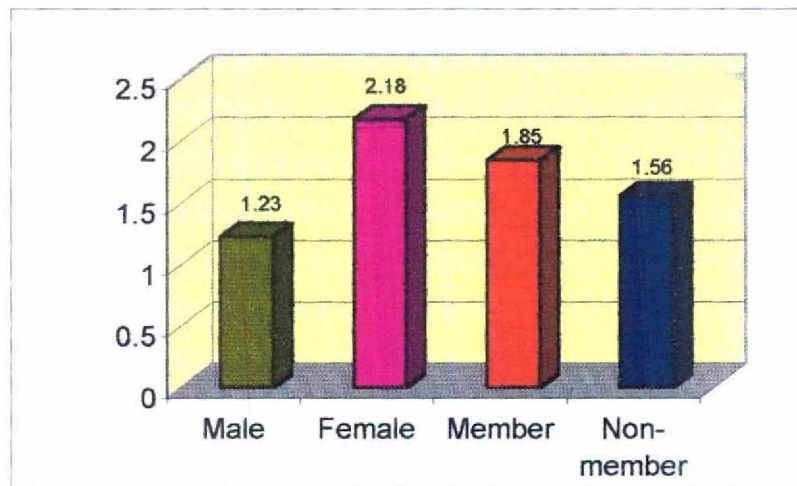
Table 3.2.7.b : Mean Values of Working Hours by Age and Sex

Age	Member		Non member		Total
	Male	Female	Male	Female	
12 years	1.22	0.85	1.67	1	1.19
13 years	1.23	2.7	0.91	2	1.71
14 years	0.9	3.02	0.85	2.78	1.89
15 years	1.96	3.04	1.42	1.25	1.92
16 years	0.33	3.25	1.8	1.88	1.82

Table 3.2.7.b presents the mean values of working hours for the different groups of respondents. The mean values show that average hours of working is more for female respondents (2.18 hours) than for male respondents (1.23 hours) in both the member and non-member groups. On the other hand,

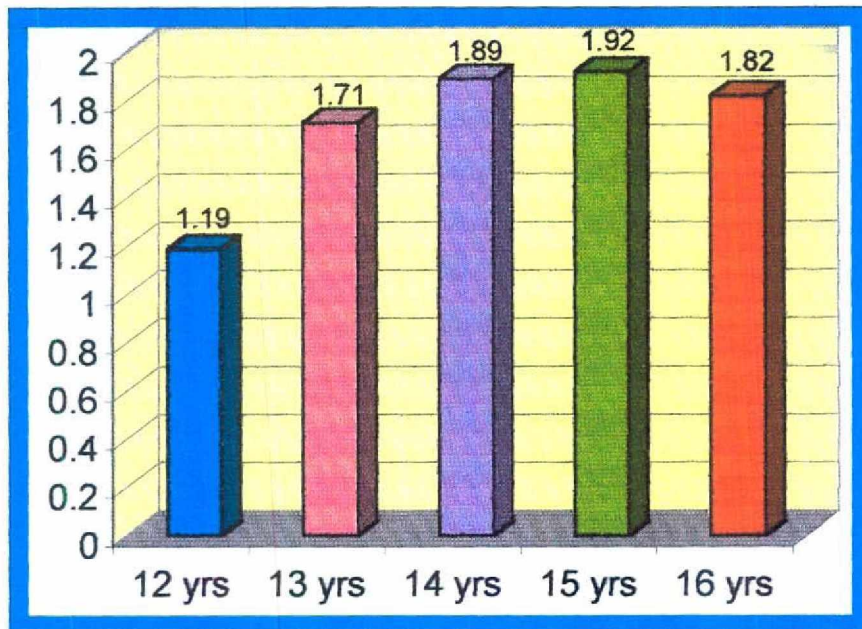
Children whose parents are members of NGO show greater number of working hours (1.85 hours) than children whose parents are non-members (1.56 hours). The comparison of average working hours for these groups are presented in Graph 3.2.7.a.

Graph 3.2.7.a: Mean values of Working Hours by Parents' NGO Membership and Sex

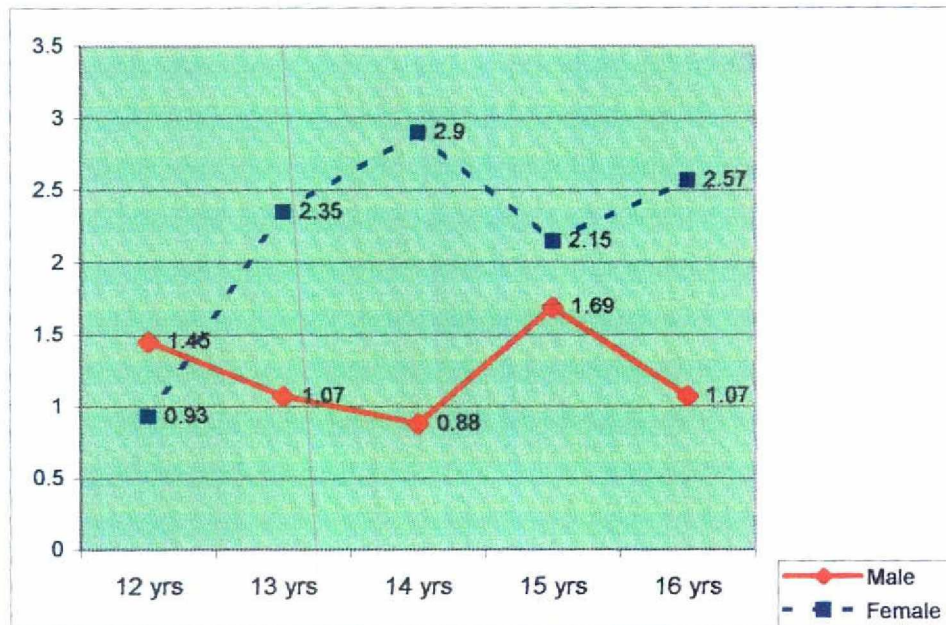


The Table of mean values (3.2.7.b) also shows that working hours increases with increasing age with least number of working hours for the 12 years age (1.19 hours) group and highest for the 15 years age group (almost 2 hours). Graph 3.2.7.b. presents the average hour of working for the different age groups.

The interaction effect of sex and age was found to be significant for working hours of respondents. The working hours of male at an younger age more than female but gradually the average hours of male decreases while that for female increases. The interaction effect for age and sex on working hours of respondents is presented in graph 3.2.7.c.

Graph 3.2.7.b : Mean Values of Working Hours by Age

It is observed from the results that at a younger age the work load of both male and female rural children are almost same but above 12 years there is a sharp rise in the work load of girls while for boys it drops. The gap of average working hours between boys (1.69 hours) and girls (2.15 hours) is seen to be least at the age of 15 years and most at the age of 14 years, when the average working hours for boys is 0.88 hours and for girl it is 2.9 hours.

Graph 3.2.7.c : Interaction Effect of Age and Sex on Working Hours

3.2.8. Time spent in Recreation

Respondents of different groups, age, sex and parents NGO membership were compared with regard to their time spent in recreation daily. Recreation activities mentioned by the respondents were such as playing games, spending time with friends, watching TV, reading story books, etc. The findings of three-way analysis of variance for recreation hours of respondents is presented in Table 3.2.8.a.

Table 3.2.8.a : Three way Analysis of Variance of Recreation Hours by Age, Sex and Parents' NGO membership

Source of Variance		Sum of Squares	df	Mean Square	F value	Sig.
Main Effects	(Combined)	55.565	6	9.261	7.481	
	Age	10.489	4	2.622	2.118	.079
	Sex	34.845	1	34.845	28.150	.000
	Membership	12.548	1	12.548	10.137	.002
2-way interaction	(Combined)	17.458	9	1.940	1.567	.125
	Age by Sex	6.904	4	1.726	1.394	.236
	Sex by Membership	6.818	1	6.818	5.508	.020
	Membership by Age	5.039	4	1.260	1.018	.398
3-way interaction	Age by Sex by Membership	6.426	4	1.607	1.298	.271
Residual		346.597	280	1.238		
Total		426.047	299	1.425		

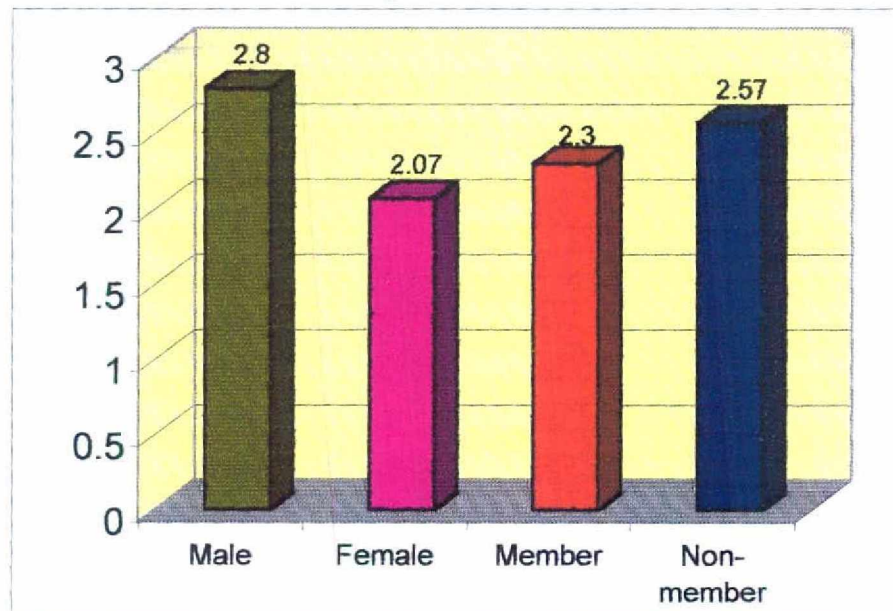
The analysis of variance show significant effects of sex ($F = 28.15$; $df = 1, 280$; $p < .00$) and parents' NGO membership ($F = 10.14$; $df = 1, 280$; $p < .00$) on recreation hours of respondents. The interaction effect of sex and NGO membership ($F = 5.51$; $df = 1, 280$; $p < .02$) was also found to be significant for recreation hours of respondents. Table 3.2.8.b. presents the mean values of recreation hours for sex and parents' NGO membership of respondents. No significant effect was found for age in the time spent for recreation.

Table 3.2.8.b : Mean Values of Recreation Hours by Sex and Parents' NGO membership

Sex	Member <i>f M</i>	Non-member <i>M</i>	Combined Mean (Male and Female)
Male	2.75	2.85	2.80
Female	1.84	2.29	2.07
Combined Mean (Member and Non-member)	2.30	2.57	

The Table (3.2.8.b) of mean values show that male respondents spend more time (2.8 hours) in recreation of both member and non-member groups and in all ages than their female counterparts (2.07 hours). On the other hand respondents whose parents are not members of NGOs spend more time (2.57 hours) in recreation than those whose parents are NGO members (2.3 hours). Graph 3.2.8.b. presents the average hours of recreation for these groups.

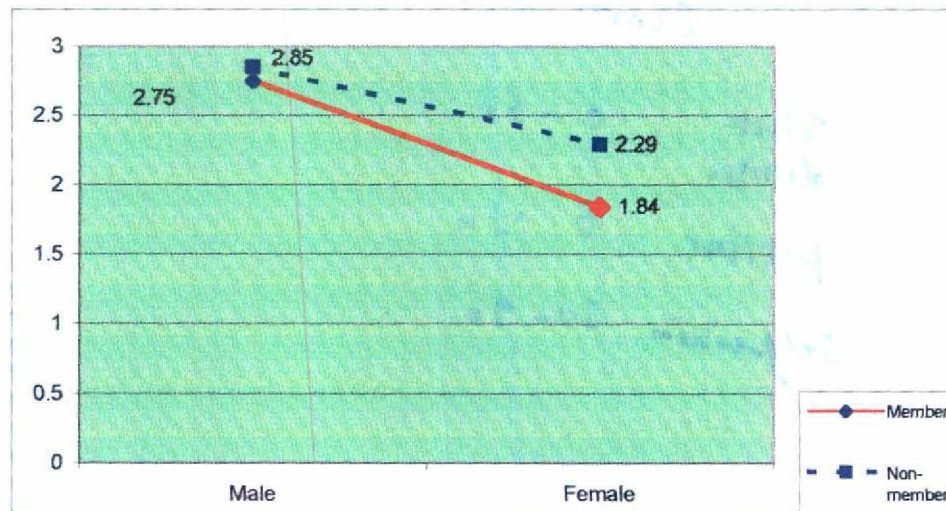
Graph 3.2.8.a: Mean Values of Recreation Hours by Sex and Parents' NGO Membership



The interaction pattern of recreation hours for sex and parents' NGO membership is presented in Graph 3.2.8.b. and it can be observed that the difference of recreation hours among female for member and non-member group is much greater than male respondents of the two groups. The average recreation hours is least for the female respondents whose parents are NGO members (1.84 hours) and highest for the male respondents whose parents are not NGO-members (2.85 hours).

non

Graph 3.2.8.b : Interaction Effect of Sex and Parents' NGO membership on Recreation Hours



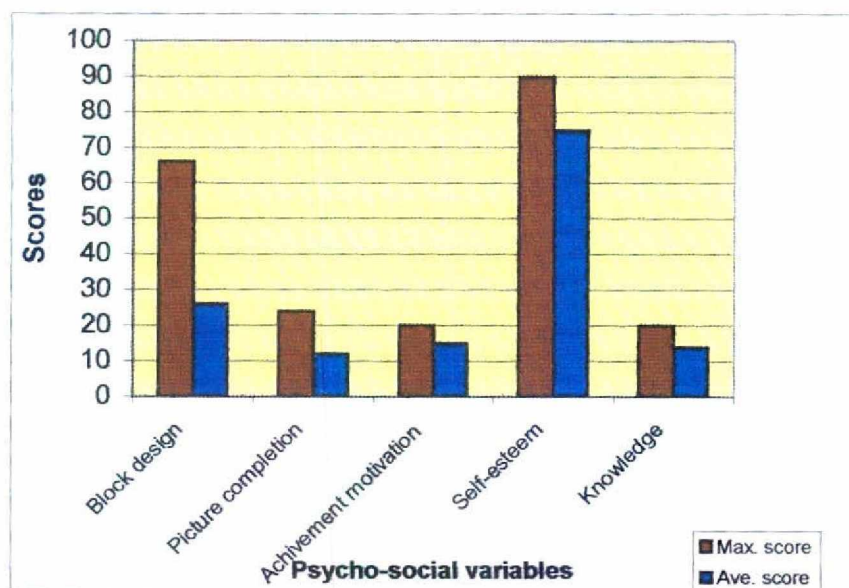
Overall performance of respondents on the psychosocial measures

The overall performance of respondents (of all age group) varies along the psycho-social variables measured in the study. When compared to the maximum obtainable scores, the average score of rural children show poor performance in the problem solving tasks, viz. block design and picture completion tests, obtaining average scores which is 38% and 52% of the total scores respectively. On the other hand the average scores are better for self-esteem, achievement motivation and knowledge on health and social issues, 83%, 74% and 70% of the maximum obtainable scores respectively. On the average the rural children spends almost 10 hours learning, and two hours for recreation and two hours for working. Time spent on recreation and working vary significantly for male and female children.

Table 3.2.9 : Comparison of maximum obtainable scores on psychosocial measures and Average scores obtained by the respondents

Psycho-social measure	Maximum obtainable score	Minimum obtainable score	Average score obtained				Overall
			Member-male	Member-female	Non-member male	Non-member female	
Block design	66	0	32.11	24.62	23.98	23.24	25.99
Picture completion	24	0	14.51	12.84	10.47	11.88	12.43
Self Esteem	90	30	74.47	75.77	75.17	73.97	74.85
Achievement motivation	10	20	14.88	14.66	15.21	14.59	14.84
Knowledge on health and social issues	20	0	14.34	13.65	14.53	13.15	13.92
Learning hours			10.06	9.85	10.08	10.03	10.00
Working hours			1.19	2.77	1.06	2.08	1.8
Recreation hours			2.69	1.63	2.68	2.34	2.34

Graph # 3.2.9: Comparison of Maximum obtainable scores and Average scores obtained by respondents



In summary the findings of the analyses of variance show significant difference among respondents as follows:

- a) Children of member and non-member group differ significantly in problem solving abilities (block design and picture completion), time spent in work and recreation.
- b) Significant difference is found for boys and girls in block design, picture completion, achievement motivation, health and social knowledge and time spent for work and recreation.
- c) The age-groups differed significantly for health and social knowledge; time spent in learning and work.
- d) Significant joint effects are found for sex and parents' NGO membership in performance of block design, picture completion, time spent in learning and recreation. Significant joint effect was found for age and sex for working hours of respondents. Three-way significant interaction of age, sex and parents NGO membership was found for learning.

3.3 Correlates of Psychosocial development

To investigate relationship between the several variables in the study/coefficient of correlation was computed for some selected variables, namely age, parents' education, household assets, block design, picture completion, self esteem, achievement motivation, hours spent on learning, working and recreation, health and social knowledge. Only those variables were selected which were measured in interval scale. Table 3.3.1 presents correlations between independent variables (Age, Father's education, Mother's education and Household assets) and dependent variables (Block design, Picture completion, Achievement motivation, Self-esteem, Knowledge on health and social issues, Learning hours,

Working hours and Recreation hours). Table 3.3.2 presents inter-correlations between the dependent variables.

Table 3.3.1 : Pearson Product Moment Coefficient of Correlations
between Independent variables and Dependent variables

Independent Variables	Dependent Variables							
	Block Design	Picture compl.	Achievement motivation	Self esteem	Knowledge	Learning hours	Working hours	Recreation hours
Age	-.078	-.124*	.073	-.050	.117*	.115*	.160**	-.050
Father's Education	.359**	.323**	-.060	.067	.104	-.042	-.095	.010
Mother's Education	.227**	.235**	-.081	.121*	.131*	.119*	-.061	.023
Household Assets	.099	.107	-.013	.025	-.006	.055	-.142*	.137*

*(p<.05); ** (p<.01)

The following findings are obtained from Table 3.3.1:

- Age is having a significant positive correlation with health and social knowledge (.117; p<.05), learning hours (.115; p<.05) and working hours (.160; p<.01). It is thus indicated that knowledge of health and social issues increases with age and also working hours and learning hours increase with age.
- Age is having a significant negative correlation with picture completion task (-.124; p<.05), indicating that younger children performed better in picture completion task than older children.
- Fathers' education was found to have significant positive correlation with children's performance on block design (.359; p<.01) and picture completion tasks (.323; p<.01), that is, higher the education level of

fathers' better ^{will be} the performance of their children ⁱⁿ problem solving tasks. This ^{is} indicating ^{that} fathers' education level has ^a positive influence on children's cognitive development.

- Mothers' educational level was found to ^{be} have significant ^{by} positive correlation ^{ed} with children's performance on problem solving tasks such as block design ^{r²} (.227; $p < .01$), picture completion ^{r²} (.235; $p < .01$) and knowledge ^{r²} (.131; $p < .05$). It also shows significant positive correlation with self-esteem ^{r²} (.121; $p < .05$) of children and their learning hours ^{r²} (.119; $p < .05$). It means that higher the education level of mothers better ^{will be} the performance of children in block design, picture completion and knowledge tasks. ^{Similarly,} higher the self-esteem of children, ^{and} more hours ^{they} spent in learning ^{by} children.
- Number of household assets showed ^{are} significantly ^{inversely} negative correlation ^{ed} with working hours ^{r²} (.142; $p < .05$) and significantly positive correlation with recreation hours ^{r²} (.137; $p < .05$). This means that greater the number of household assets, in other words better the economic condition, lesser the number of hours spent on work and more the number hours spent in recreation by rural children.

Table 3.3.2 ^{be placed here}

The coefficients of correlations among the dependent variables as shown in the Table above (3.3.2) can be stated as follows:

- Significant positive correlation exists between block design and picture completion (.432; $p < .01$), that is, high score in block design follows high score in picture completion or vice versa.
- Health and social knowledge has significant positive correlation with block design (.162; $p < .01$). Health and social knowledge also shows a significant positive correlation with self-esteem (.172; $p < .01$). High score in knowledge goes with high score in self-esteem, ^{implying that those who are high in knowledge are also high in self-esteem.}

Table 3.3.2: Inter-correlation of coefficient between the Dependent Variables

Variables	Block design	Picture Comple.	Achieve. motivation	Self esteem	Knowledge	Learning hours	Working hours	Recreation hours
Block design	1.00	.432**	.062	.016	.162**	-.012	-.268**	.198**
Picture Completion	.432**	1.00	.036	.074	.092	-.040	-.116*	.079
Achieve. motivation	.062	.036	1.00	-.012	-.009	-.004	-.146*	.237**
Self esteem	.016	.074	-.012	1.00	.172**	.015	.020	.035
Knowledge	.162**	.092	-.009	.172*	1.00	.008	-.022	.010
Learning hours	-.012	-.040	-.004	.015	.008	1.00	-.207**	-.087
Working hours	-.268**	-.116*	-.146*	.020	.010	-.207**	1.00	-.507**
Recreation hours	.198**	.079	.237**	.035	.010	-.087	-.507**	1.00

**p<.01

inverse

- Learning hours has a significant negative correlation with working hours (-.207; $p<.01$). *This suggests low* Those who spend more time in learning spend less time in working and vice versa.
- Working hours also shows a significant negative correlation with block design (-.268; $p<.01$), picture completion tasks (-.116; $p<.05$) and achievement motivation (-.146; $p<.05$). This indicates that those who spend more time in working *have low* scored less in problem solving tasks (block design and picture completion) and *also shows lower in* achievement motivation.
- Working hours has *significant inverse* negative correlation with hours of recreation (-.507; $p<.01$). *This implies that* Those spend more time in working, spend less time in recreation or leisure.

- Recreation hours ^{are} show positive significant ^{ly} correlation ^{ly} with ^{ed} block design (.198; $p < .01$) and achievement motivation (.237; $p < .01$). It is thus indicated that more time spent in recreation is ^(the scores of) associated with high scores in block design and achievement motivation. ^{significantly}
^{intellectual output.}

The findings thus show that not only independent variables bear significant correlations with dependent variables ^{ly} but ^{the} dependent variables ^{are also} among themselves have significant correlations.
^{ly} intercorrelated.

The results of the present study have brought into surface many dimensions of psychosocial development of rural children in Bangladesh along with their relationship with the impact of NGO interventions. A detail discussion of the findings of the study is given in the following chapter.

CHAPTER – IV

DISCUSSIONS

&

CONCLUSION

DISCUSSION & CONCLUSION

The present study was undertaken to investigate impact of NGO intervention on Psychosocial development of children in rural Bangladesh. Children whose parents are NGO members, commonly known as “Samity Members” in rural areas, were compared with children whose parents are not members of any NGO with regard to some psycho-social aspects of development. The children were compared in terms of problem solving abilities, health and social knowledge, self-esteem, achievement motivation and their activity profile. Significant difference between the two groups of children would indicate that parents being member of NGOs makes a difference in the psychosocial development of their children and thus NGO interventions have an indirect influence over children’s psychosocial development in rural Bangladesh through their parents.

In addition to the mentioned comparison, the study also made comparison between male and female respondents and five different age-groups (12, 13, 14, 15 and 16 year olds) of children along the same psycho-social variables.

An effort was also made to compare the life style of the two groups, member and non-members of NGOs, on the basis of some household variables such as family type, family size, source of drinking water, type of latrine used, kind of treatment taken in illness, parents’ education and ownership of household assets. The results of all these comparisons are presented in the previous chapter. This chapter discusses on the findings of the study. For convenience of discussion the findings are categorized in the following parts:

- 1) Comparison of NGO members and non-members on household variables.

- 2) Comparison of psycho-social variables among member and non-member groups, male and female and different age-groups.
- 3) Inter-correlations among the psycho-social variables.

4.1 Comparison of NGO members and non-members on household variables

The household variables employed to compare the member and non-member groups were family type, number of siblings, father's and mother's education, source of drinking water, type of latrine used, kind of treatment taken in illness and number of household asset owned. All information regarding household variables were collected from the children during data collection phase.

In most of the cases ^{non-}significant difference ^{was} not found between the two groups. ~~Significant differences were found for~~ ^{However,} family type, parents' education and number of household assets owned, ^{we found to be highly significant for 15% gp.}

Findings should be! Those who are members of NGO were found to have more nuclear families (95%) than those who ^{were} not members (84%) (chi value = 5.04; df=1; p<.05). This indicates that NGO members lead a more independent life style and have less number of dependents other than immediate family members. This may also be taken as an indication that those who have less family and social support tend to become NGO members. *Good inference !!*

The study has found significant difference between member and non-member groups in terms of parents' education. In the member group only 7% of ~~member~~ fathers were reported as non-literate, whereas ^{whereas,} for non-members it was 28% (chi value = 29.06; df=1; p<.001). As ~~for mothers education status,~~ 11% of mothers in member groups were reported as non-literate ^{while} in the non-member group it was found to be 29% (chi value = 40.99; df=1; p<.001). The findings indicate that education is an influencing factor in becoming a member of NGO. The level of education could be a possible factor to influence the

important and

decision⁷ whether to become a member of a NGO or not or it can be a requirement to be able to read and write to become a member. It may also be that they have earned literacy on becoming a member (under NGO project activity). Education is one of the basic and most important determinants of an individual's life style⁷ thus⁷ the significant difference⁸ among the two groups in education may as well reflect in many of the other aspects of their lives.

Another significant difference (chi value = 15.05; df=1; p<.05) was found between the two groups (member and non-member) in ownership of household items, such as furniture, tube-well, livestock and poultry, sewing machine, bicycle or motor cycle, radio, television etc. The member group owned greater number of household items than the non-member group. This indicates that member group is either having a better economic condition or prefer to have a more comfortable life style than the non-member group.

As for other household variable significant differences were not found between the member and non-member groups, regarding number of siblings, source of drinking water, type of latrine used and kind of treatment availed in illness. There seems to be a general awareness among both members and non-members with regard to these variables and both groups show a positive trend of behavior. For both groups the highest frequency of number of children is three; the major source of drinking water for both groups is tube-well; both groups use slab latrine which is hygienic for rural areas; and both go to modern medicine services in illness such as hospital, physicians and dispensary instead of traditional healers. Even though the non-members were found to be having less education than the member group^{however,} they do not differ much in their awareness regarding some basic aspects of life style. Thus in general it ^{is safe here to say that} ~~can be said that~~ ^{seems to be} ~~there has been a~~ mass awareness raising along these aspects of life style (drinking water, latrine and treatment) among the rural people. Although NGOs have

Not clear
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played an active role in raising awareness among the rural mass, it may also be a result of mass communication and propaganda on these issues.

4.2. Comparison of psycho-social variables among member and non-member groups, male and female and different age-groups

The sample of the present study was drawn from different parts of Bangladesh inclusive of the four major divisions of the country, namely Dhaka, Chittagong, Rajshahi and Khulna. One hundred and fifty boys and one hundred and fifty girls belonging to five age groups, 12 to 16 years, were interviewed and measured on five aspects of psychosocial development, problem solving, health and social knowledge, self-esteem, achievement motivation and activity profile. The measures on psychosocial variables were compared between children whose parents are member of NGOs (member group) and children whose parents are not members of NGOs (non-member group), between different age groups from 12 through 16 years of age and between different sex, male and female.

In general the findings (Table-3.2.9) show that rural children scored highest in Self-esteem (average score 75 out of maximum score of 90); next in achievement motivation (average score 15 out maximum score of 20) and then in health and social knowledge (average score 14 out of maximum score of 20). The lowest average scores were obtained for block design test (average score 26 out of maximum obtainable score of 66) and picture completion test (average score 12 out of 24). One reason for the low performance in the problem solving tests could be poor skill in problem solving tasks or it can be due to unfamiliar task which required some different kinds of analyses for the rural boys and girls.) \$

Rural children were found to spend 10 hours in learning school work, almost two hours working and a little more than 2 hours for recreation activities on the average. In spite of allocating a large proportion of time in school learning the achievement of academic competencies of rural children is very low in general,

delineating a gap in effort to learn and actual learning and this gap needs to be addressed for effective education of children in the country.

4.2.1 Comparison on Problem Solving Ability among the different groups of respondents:

The problem solving ability is considered as representing cognitive development and having the ability to understand the problem and/or to identify a problem, analyze and identify the gap, find out relationships between parts and whole, see alternative ways or approaches and finally make an appropriate response to solve the problem. In the present study two types of tasks were given to measure the problem solving abilities of respondents, the block design test where patterns had to be made with blocks (fit parts to make a whole), and the picture completion test, in which missing part of an item had to be identified.

Significant differences were found between the member and non-member groups in block design test ($F=23.15$; $p<.000$) and the picture completion test ($F=32.84$; $p<.000$). Children of member parents showed significantly better performance in both the tests. One reason for significantly better performance of the member group could be because member parents have higher level of education and more exposure through NGO interventions which had an influence over their children's in problem solving abilities. It may also be that children whose parents are NGO members have wider scope to use representations, planning and experimenting with different strategies and transferring solutions to different kinds of problems. Previous studies have shown that parental interactions with children play a vital role in cognitive development, especially direct instruction or working with children foster problem solving abilities (Radziszewska and Rogoff, 1988). It is also possible that children of NGO-members are less dependent on parents for solving their problems as their parents are engaged in other works and if so these children are

familiar with problem solving tasks. To gain a better understanding as to why children of member group performed better it would be necessary to investigate their child rearing and guidance practices and parent-child interaction pattern, which was outside the scope of the present study.

The study also found a significant difference between male and female children in block design ($F=15.54$, $p<.000$) and a significant two-way interaction for sex and parents' membership ($F=6.96$; $p<.009$). In the block design test, male respondents performed better than female respondent in both member and non-member groups. On the other hand, in picture completion test, male performed better than female in member group but female performed better in non-member group. Children's problem solving ability involves several skills such as using representations, analogy, strategy choice, formal reasoning, etc. Development of these skills require experience and practice along with maturation. Culture has a major role to play in qualifying these skills during the development phases of children. In the cultural context of Bangladesh, female children appear to have ~~but~~ limited scope to experience and practice the requisite skills for attainment of problem solving ability. It is not to say that they do not develop these skills but to point out that they do not have ~~the~~ ^{much} scope to try out their skills in a wider domain which ultimately hinder ^s their ability to apply problem solving skills in different contexts or different nature of problems. The skills required to perform the picture completion test was probably more suitable for the female respondents than those required for the block design test because of the nature of the task. Therefore, their performance varied in these two tests and the female respondents of non-member group performed better than male respondents in picture completion test.

According to Piaget and information-processing theorists Age is an important factor in development of problem solving abilities. However, in the present study significant difference was not found for the problem solving tasks among

the five age-groups. If mean values are compared, in the block design test the 13 and 16 years olds have performed well and in picture completion test, the 12 years olds have outscored the other groups. Interestingly these three age groups also scored high in achievement motivation. Age is an important factor in problem solving when formal reasoning is required. Besides, the problem solving tests employed in the study did not require much of formal reasoning or abstract thinking the performance of the different age-groups did not vary significantly. children of 12

4.2.2. Comparison on Achievement Motivation among the different groups of respondents:

Achievement motivation is defined as a learned motive to compete or strive for success or excellence. In the present study, a significant difference was found between male and female with regard to achievement motivation. Membership of parents in NGO and age did not show any significant influence over achievement motivation of the respondents.

The boys-and-girls difference in achievement motivation has been found in many other studies (Crandall, 1969; Parsons, Ruble, Hodges & Small, 1976). Achievement motivation is very much influenced by child's expectations, locus of control and parental influence. Girls often underestimate their capacity to succeed or excel in academic achievement. Parents expectations from their daughter are often low, especially in academic achievement. Furthermore, the girl in our country, especially in rural areas, are given little autonomy or freedom of expressions, which in turn makes them dependent on others, developing external locus of control and thus lowering not only their motive to achieve but also underestimating their capacity to achieve. This lowered achievement motivation and underestimating capacity is often harnessed and reinforced by

the society. NGO intervention should pay more attention in raising girls achievement motivation. #

- * Children of member and non-member groups and the different age groups did not differ significantly with regard to achievement motivation. However, the non-member group ^{has obtained} shows slightly higher average score in achievement motivation than the member group ^{similarly} and 16-years age group shows ^{scores} a higher ^{on achievement motivation} average score ^{compared to} than the rest of the ^{age} groups.

Achievement motivation acts as a driving force for growth of an individual. Aptitudes and potentials are not of much use if not properly exercised and exercising will not occur if the individual is not motivated to do so. Many children do not perform well in school due to lack of achievement motivation and gradually a firm believe is often established that the children do not have the ability to perform well. If not rightly addressed, the lack of motivation to achieve will continue in the adult life ^{would} and work as obstacle in the overall development process of the individual and thereby influence ^{goal settings and} achievements in life. Thus, organizations working to bring about human development need to give more attention in stimulating achievement motivation among children, especially girls, to have an impact in the course of development.

4.2.3. Comparison on Self-esteem among the different groups of respondents

Self-esteem or self worth is a positive feeling of merit of oneself and the extent to which a child believes his or her attributes and actions are good, desired and valued. The present study did not find any significant difference among the different groups with regard to their self-esteem. However, high average score has been obtained by girl respondents of member group (75.77), male respondents of non-member group (73.97) and the 12 years olds (77.09) amongst the different age-groups.

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The non-member male respondents show a constant decline from the age of 12 through 16 years. There is a general decline with increasing age for the rest of the groups in self esteem but it is not so marked. Only the non-member female group shows a sharp rise at the age of 16 years.

This decline of self-esteem with increasing age is indeed not a healthy sign for rural children of Bangladesh because self-esteem is related to social affiliations, success in school and overall mental health and it is also linked to life satisfaction and happiness in general. A low self-esteem indicate^s that the person is not feeling valued and this can have impact in various spheres of life. However other studies have also found that adolescents experience decline in their self-esteem (Block & Robins, 1993; Simmons and Blyth, 1987; Wigfield et al., 1991). Major transitions may inflict a declining trend, such as, onset of puberty, entry to high school, realignments in friendship patterns, detachment from parents as a result of getting older, etc. It may also be that as children become older they get a better understanding of the society and also become aware of what the society has to offer. In rural Bangladesh² the society do^es not have much to offer² to the children for their future and children have difficulties in setting goals for a better future, this can lead to frustration and fall in the self-esteem. On the other hand warm responsive parenting and coping strategies attributing success to competence and mastery can prevent declination of self-esteem and enable young people to face challenges with high self esteem (Brooks, 1992). However more research is needed to confirm this finding and also to investigate the causes of decline in self-esteem among adolescents of rural Bangladesh.

The findings of the study thus indicate that there is ^{non-}no significant difference among the member and non-member groups with regard to upholding their children's self-esteem. Here again it may be commented that these issues of achievement motivation and self esteem needs to be incorporated in human

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development programmes for self perpetuated development in individual and society at large.

4.2.4. Comparison on Health and Social Knowledge among the different groups of respondents

The member and non-member groups were ^{did} found not to differ significantly regarding health and social knowledge. This finding indicate that the knowledge received from NGO training by parents are not transmitted to their children effectively. ~~otherwise there would have been a difference in performance by children of these two groups.~~ ??

On the other hand, significant difference in Health and Social knowledge was found for sex ($F=9.47$; $p<.01$) and age ($F=2.73$; $p<.05$). Male respondents performed better than female respondents and older children performed better than younger ones. One of the main reasons for this difference can be attributed to the experience of exposure to the outer world. ^{Findings based on 1st children} ~~Those~~ who have more exposure, ^{and age} male and older children in the present study, come across the different messages of health and social issues through mass media, text books, posters/pictures, bill boards, interaction with people, etc. While children who go out less have very limited source of information resulting to narrow knowledge base. ^{good insight!!}

This finding deserves consideration by NGOs working for sustainable development. Targeting adults and parents may not automatically raise awareness of children unless the programme is designed ^{do} to so. And if the children cannot be contacted through adults, the programming can go on forever with no real impact in the society. ^{Not clear??} Because all children must wait to become adult to have their awareness raised, knowledge enhanced and behavior changed. If parents do not pass their knowledge to their children or family members then it is hard to expect that knowledge will be shared among ^{phrasing??}

community members and neighbours (who are often considered as indirect targets by development programmes) to have a positive impact in the society.

4.2.5. Comparison among the different groups of respondents regarding Time spent in learning, working and recreation

One of the objectives of the study was to find out whether the different groups of respondents differ in terms of time they spend in learning, working and recreational activities. The findings revealed:

Significant difference in learning hours for age ($F=4.199$; $p<.01$). Learning hours for children were found to increase with increasing age of children. The male-female groups and the member-nonmember groups did not show any significant difference in terms of time they spend in learning school work. But significant interaction effect was obtained for these groups. Two-way interaction among sex and membership was found to be significant ($F=4.850$; $p<.05$), in average children of non-members parents spend more time in learning, whereas, male respondents of both member and non-members groups spend more time in learning than female respondents.

Working hours were found to differ significantly for different age groups ($F=66.76$; $p<.01$), male and female respondents ($F=66.76$; $p<.01$), and among member and non-member groups ($F=7.11$; $p<.01$). The working hours increases with increasing age, it is more for female than male respondents and also more for children of member parents than the non-member group.

Recreation hours were found to differ significantly for male and female respondents ($F=28.15$; $p<.01$) with male spending more time in recreation than female, and also for member and non-members groups ($F=10.14$; $p<.01$) with children of non-member groups spending more time in recreation than those of member groups.

One finding showed that

The above findings thus indicate that male children are in a advantageous position than female children in their daily life activities, both sex spend almost equal time in learning but male spend more in recreation and female more in work (mainly domestic work). On the other hand children of non-member parents are better off in having to do less work and more recreation than children of member parents.

Recreational activities, in terms of play and exposure, bring another kind of learning for children which give added value in the course of development. The importance of play and exposure is often ignored by parents in our society, especially for girls. More emphasis is given on school work and children find little relevance of school lessons with their daily life resulting to less satisfaction. Whereas recreation activities like playing games, reading books, magazines, newspapers, getting involved in cultural activities, etc. widens a child's view of the outside world and is enjoyable. Also the other activities of rural children like fishing, swimming, climbing tree, flying kites, etc. enhances not only skill but also self confidence, achievement motivation, self satisfaction and also contributes in developing self reliance to some extent. All such inner qualities, which begin growing in childhood, are essentials for achievement and life satisfaction in adulthood. Thus restricting children's time with school work and domestic work can obstruct the growth of psychosocial qualities in children.

4.3. Inter-correlations among the psycho-social variables:

The relationships between psycho-social variable are very intricate and inter-dependent. Any change in one variable may have implication on another. That is why it is important to understand the inter-relationship among these variables. The inter-correlations among the various psychosocial variables help us to see how they are related with each other.

a) Performance in cognitive tasks, such as block design, picture completion and knowledge test, show a strong positive relationship with each other and also with respondents' age and parents' education. Respondents show better performance in these tasks with increasing age indicating their growth in cognitive skill. Similarly, children with parents of higher level of education performed better in cognitive tasks indicating parents' education has implications over their children's cognitive development through their interaction with their children.

Working hours has shown a negative correlation with cognitive tasks i.e. block design and picture completion. Children spending more time in (domestic) work were found to be less skilled in the cognitive tasks applied in this study. There could have been a different result if the study had involved the kind of skill children use in their are familiar with. However it is still important to note that involving children in work does not help much in enhancing their cognitive development, especially in problem solving tasks. Interestingly learning hours were not found to have any significant correlation with cognitive tasks of the study, indicating that hours spent in school learning may not necessarily contribute in cognitive development (such as problem solving, analyses, manipulations, innovation, etc.) at large. On the other hand recreation hours were found to have significant positive correlation with problem solving task of block design. This points up that skill developed in recreation activities of children are useful in problem solving tasks.

b) Self esteem was found to have a significant positive correlation with mother's education and knowledge level. Knowledge makes a person more confident about himself or herself and therefore also raises the self-esteem. Educated mothers probably treat their children with more respect and understanding which helps the growth of self-esteem in children. This can be an area for further exploration to confirm this finding.

c) Achievement motivation had shown significant negative correlation with working hours but positive correlation with hours of recreation, indicating children spending more time in work have less achievement motivation, which was found to be true for girls; and those spending more time in recreation have high achievement motivation and found true for boys. We may say from this finding that recreation activities promotes achievement motivation in children. However one must be cautious to draw conclusion on this finding because the level of achievement motivation may also vary depending on the kind of activities or tasks the child is engaged with. Too much engaged in work reduces achievement motivation in children, especially if the work is not rewarding and challenging. If it is imposed work the child must do as a daily routine, he/she will find his or her task to be less meaningful for him or her and the motive to achieve will lessen.

Children's allocation of time in learning, working and recreation were found to be negatively correlated with one another. Time spent in any one of the three categories of activities (learning, working or recreation) reduces time for the others, eg. a child who spend more time in learning has less time for work and recreation. However the study found that children do not differ much in time allocated for learning but for working and recreation significant differences were obtained for boys and girls and also for children of member and non-member parents. Girls in rural Bangladesh have less time for recreation and spend more time in work and opposite is true for boys. On the other hand children of member parents were found to spend more time in work and less in recreation while opposite was found for those whose parents are non-member.

The study has found significant interaction effects between parents NGO-members and sex for some of the psychosocial variables such as, block design, picture completion, learning hours and recreation hours. Significant interaction effect was found for working hours by age and sex. In all these findings it can be

observed that there is a significant difference in the mean values of girls and boys within the member and non-member groups or the different age-groups. Girls whose parents are NGO-members have least learning hours and recreation hours but highest working hours, it thus indicate that when parent give less time in domestic work due to their engagement in other activities, the work load of girls in that family increases. Therefore attention is to be given by NGOs how they are affecting children, especially girls, by involving parents in development programmes.

4.4. CONCLUSION

The development of an individual may have several dimensions of which two broad dimensions are: physical and psychosocial. The two are not separate from one another but rather complementary and integrated. However, the physical development is far more visible and measurable than the psychosocial development. Just as there are indicators of physical growth like height, weight, muscle strength, there are also psychosocial indicators like self confidence, self esteem, achievement motivation, ability to acquire, analyze and retain information, effective communication, problem solving ability, creative and innovative thinking, etc through which we can, at least, estimate the level of psycho-social growth of an individual. The achievement and success of an individual can be seriously impaired if these psychosocial qualities do not develop within the person, even if she or he is physically healthy. Even the person's health can be affected if awareness is lacking in maintaining health.

Most of the development programs and interventions undertaken by the NGO sector in our country pay more attention to the physical well being of people and often do not take into consideration, until very recently, the psycho-social

aspects of human development. Many NGOs have good awareness raising program. But mere knowledge helps little if not transferred into behaviour and the behavioural changes are often not checked out due to various difficulties. The present study clearly points out that the children of NGO members and non-members do not differ significantly in terms of knowledge on health and social issues, self-esteem and achievement motivation. However they have been found to differ significantly in terms of problem solving ability, but this ability is also found to be highly correlated with parents' educational level. NGO member parents were found to be more highly educated on the average than the non-members. Thus whether the cause for better problem solving ability is due to parents' being NGO member or education of parents needs to be explored further for confirmation.

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The findings of the study has shown that the economic condition of member households is better, in terms of asset ownership than those of non-member. However this did not seem to make much difference in their life style, especially with regard to safe drinking water, use of sanitary latrine and treatment during illness. It may be further pointed out that better economic condition also did not allow children for more recreation in the member households, it was found that children (especially boys) of non-member parents had more time for recreation.

Most NGOs have programs on awareness building on gender equity but how much this awareness is practiced at the household level needs further investigation because the present study show a considerable gender gap in the way boys and girls spend their time. The kind of life style of girls found in this study accounts for their lagging behind in problem solving tasks, achievement motivation and self-esteem which are essential ingredients to attain full growth as an individual. This means that the same gender disparity will continue to prevail when these children turn to their adulthood and similar kinds of

programs are to be undertaken for them and this will remain as a continuous process for a long time if no measures are taken to remove gender discrimination from childhood.

Based on the finding of the study the following recommendations are made in NGO programming for rural Bangladesh:

- a) To consider the psychosocial aspects of human development in designing, implementing and evaluating the development programs;
- b) To incorporate the psychosocial development of members when evaluating the impact of programming aimed at human development;
- c) When designing the awareness program, attention is to be given regarding how these awareness will be passed unto the next generation; otherwise like mentioned before, it will become a continuous process without giving any return on the investment;
- d) Consider the impact on children and how they benefit from the development interventions in the evaluation of a programme because the future of the nation lies with the children. For example, the gender disparity or discrimination in the society will not be reduced if gender programming do not change the role and status of girls in the society.

Limitation of the Study

Although the present study tried to maintain a sound methodology and analyses of data, nevertheless it is not free from certain drawbacks and limitations. The following can be said to be the major limitations of the study:

1. Originally the study had planned to cover 9 Districts from the four greater geographical divisions of Bangladesh. At least two Districts from each Division and three from Dhaka as population of Dhaka is much greater than the other three Districts. However due to unavoidable circumstances data was collected from seven Districts keeping the number of respondents from the

Division as planned. The sample would have been more representative if the whole country could have been covered with a much larger sample and number of schools.

2. The study did not control the extraneous variables that could affect the result of the study. This was not necessary as the study aimed to see the general pattern, however if the study is to be replicated in future, it would be worthwhile to have a more rigorous control over the variables.

3. Information on duration of membership of parents could generate results showing whether children of NGO members of a longer time differ from those who are members of shorter time.

4. Interview of parents and their interaction pattern with children could generate a more meaningful understanding of the difference found between children of member and non-member parents. Further studies with qualitative data from both parents and children could be undertaken to have a deeper understanding of the differences between NGO-member parents and non-member parents.

5. A very crucial question of children's understanding and value towards their parents membership in NGOs was absent. Children's answer to this question would have given much weight to the findings of the study as well as some directions to the designing of programmes by development organizations.

6. The academic achievement of children were not determined and correlated with other findings. Although the questionnaire had an item as 'roll number' of the subject it was found that all schools do not maintain the roll number according to the merit order and some children could not recall their roll number during the interview, therefore during analyses phase this item was omitted.

7. The kind of work children are engaged in were not coded and analyzed. Although a general picture was obtained, a more systematic analyses would be

helpful as baseline for further research in future to track the changes in role of male and female children.

The above are to be considered if similar further research is conducted along similar line.

Implications for further studies:

Some of the findings of the study need further investigation for confirmation and for some causal factors need to be determined, such as:

1. Parent-child interaction pattern in developing problem-solving skill in children.
 2. The causes of marked declination in self-esteem with age among rural children.
 3. Underlying causes of low achievement motivation among girls in rural areas.
 4. Consider the membership duration of parents in determining the effect on children.
 5. Investigate the impact of a particular selected NGO program on children to have a more clear understanding how children are affected by development activities.
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As a concluding remark it can be said that the findings of the study have brought into surface many dimensions of psychosocial development of children in rural Bangladesh along with their relationship with the impact of NGO interventions. The study also invites further investigations to look deeper into the psychosocial development pattern of rural children and also in relationship with the various development programs being undertaken by Government and non-government to have a better understanding of the transmission of the benefits of development programs from parents to children.

CHAPTER – V

SUMMARY

SUMMARY

Development is most clearly understood as a series of sequential changes in an organism leading to maturity. Sequential changes unfold the organism's innate dispositions and permit their structural and functional realization. Occurring within a time continuum, this produces changes in both organism and its behavior. In broad term, development refers to all the processes of change by which an individual's potentialities unfold and appear as new qualities, abilities, traits and related characteristics. It includes the long-term and relatively irreversible gains from growth, maturation, learning, and achievement. The domain of development encompasses both physical and psychological growth in an individual. Physiological development corresponds to all bodily changes of an individual from conception to death whereas psychological development corresponds to all behavioral, social and mental changes that occur as a result of maturity and learning. Researchers and theorists have taken different views in their investigations and explanation of developmental trends in human behavior.

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→ According to some, development is a gradual and continuous pattern of growth while others view it as stage like progression taking striking leap into next higher level of functioning. Some theorists have given more emphasis to the role of genetic factors in development while others considered environmental factors as more important. Such variations in theoretical explanations contributed to enrich the understanding of human development as they viewed the process from different dimensions and perspectives. ~~The~~ Various theories of development were instrumental and significant in raising critical issues and paved the path to grasp a better understanding of a phenomenon as complex as human development. The^{se} theories can be categorized under five broad categories: 1) Psychoanalytic (focuses on emotion); 2) Learning (emphasizes observable behavior); 3) Cognitive (stresses thought processes); (4) Ethological

(focuses on the evolutionary underpinnings of behavior); and (5) Contextual (emphasizes the impact of the social and cultural context). Developmental changes involve a complex process of integrating many structures and functions. These changes enable a person to adapt to the environment in which s/he lives. Changes are constantly taking place in physical and psychological capacities. While physical changes are more visible and easier to measure, psychological and social changes are rather complex, may not be directly observable and are often difficult to assess. The factors determining psychological growth and development are complex and their direct and composite relationships are difficult to determine. Nevertheless researchers have discovered many of the causal and influencing factors which are responsible for promoting or hindering psychological and social development of an individual. In the present research, the term *psychosocial* development is defined as “the development of those capacities of an individual which are psychological and / or social in nature.” Broadly these can be viewed as the growth in cognition, emotion, self-concept, language, sociability, personality, etc. which are all reflected in the behavior of the individual. As the area of psychosocial development is very wide, the present research has limited the number of variables so as to concentrate study only on a few variables namely, problem solving abilities, self-esteem, achievement motivation and knowledge about some health and social issues. The rationale in selecting these factors was that these factors are very closely associated in achieving the goal of developmental changes, that results to adaptability in the environment in an effective manner. Measures in these variables can indicate the capacity of rural children in making effective adjustment and adaptation in life.

There are several factors that may foster or impair psychosocial development of children. In rural Bangladesh, a large number of children lag behind normal development on psychosocial aspects due to lack of proper stimulation, parental

ignorance (illiteracy, poverty, powerlessness, etc.) and economic factors. On the other hand a large number of non-government organizations (NGO) are working to bring a positive and long-term change in rural Bangladesh. It can therefore, be logically argued that the psychosocial development of children of NGO beneficiaries might be facilitated indirectly through their parents who are benefiting from NGO programmes and activities aiming at human development. If the children of the NGO beneficiaries show significant change in terms of their psychosocial behaviour than children whose parents are not NGO members then it can be concluded that the NGO interventions are having long-term impact. Based on this argument the present research was undertaken to investigate the impact of NGO intervention on psychosocial development of children in rural Bangladesh.

The Objectives of the study were to find out whether there is difference in psychosocial development between:

- Children of NGO-member and non-member;
- Rural girls and boys;
- Rural children of different age-groups (12 to 16 years).

In this context the independent variables were: Parents NGO membership, Sex and Age of rural children and dependent variables were the psychosocial variables as follows:

- a. Problem solving ability;
- b. Self esteem and Achievement motivation;
- c. Knowledge regarding some social and health issues;
- d. Time spent on different activities.

Methodology:

Sample: The sample of this study comprised of 300 school going children within the age groups of 12 to 14 years. An equal number of boys (150) and girls (150) were selected for the study and almost an equal of children had NGO-member parents and non-member parents. Thus the sample was selected by purposive incidental technique. The sample was drawn from four main geographical divisions of Bangladesh: Dhaka (Narayanganj, Tangail and Gazipur), Chittagong (Noakhali), Rajshahi (Sirajgonj) and Khulna (Jessore and Khulna). The multi-stage random selection technique was applied to select the locations and the population distribution of the greater divisions was considered in determining the number of respondents from each area.

Instruments: The methodology of the study comprised of a multi-method approach. It consisted of self-administered scales, test, problem solving tasks and interview. Due to the nature of the problem and non-availability of ready tools, the instruments had to be either constructed or modified and field-tested for their appropriateness and reliability. The instruments were: 1) Hare Self Esteem Scale (for measuring self esteem); 2) Children's Achievement motivation Scale (for measuring achievement motivation); 3) Block Design and Picture Completion Tests (for measuring problem solving abilities); 4) Questionnaire to test Health and Social Knowledge; and 5) Activity Profile to measure time spent in Learning, Working and Recreation. All the instruments were in Bangla. The instruments were first field tested on 15 respondents of similar age groups to find out the appropriateness and reliability. Test-Retest method was used for determining the reliability, having pre-test and post-test within two weeks of interval. On the basis of the findings from field test some of the items

were slightly modified, to make them more simple and easy to understand for children.

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Procedure: The researcher was assisted by two field investigators to collect data from the selected areas. On finalizing the instruments, the field investigators were trained before they started administering the tools for data collection. Both the field investigators were female and had completed their Masters degree from the Department of Psychology, University of Dhaka. The instruments were administered individually on each respondent in the following order:

1. Collection of personal and household data;
2. Block Design Test;
3. Picture Completion Test;
4. Activity Profile;
5. Children's Achievement Motivation Scale;
6. Hare Self-Esteem Scale;
7. Health and Social Knowledge questionnaire.

The last three sets of instruments (# 5, 6 and 7) are self-administering tools which the children performed by themselves after explaining the tasks. It took about 30 to 45 minutes for each respondent to respond to all the items of the instruments.

Results:

After collection of data three different types of statistical techniques were applied to the data to attain the purpose of the study. The Chi-square test was used to compare the household information of NGO members and non-members. The Three-Way Analysis of Variance was used to compare children of member and non-member parents, male and female children and children of different age-groups (12 to 16yrs) regarding the psycho-social variables, viz.

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problem-solving abilities, self-esteem, achievement motivation, health and social knowledge, time spent in learning, working and recreation. Correlations of Coefficients were determined to see the nature of relationships between different dependent and independent variables.

The results revealed that the households of NGO-members and non-members differed significantly in four measures, which were, Family Type (Chi-value = 5.04; df = 1; p<.05), Fathers' Educational level (Chi-value = 29.06; df = 1; p<.001), Mothers' Educational level (Chi-value = 40.99; df = 1; p<.001) and ownership of household assets (Chi value = 13.5; df = 7; p<.05). Members of NGOs have more nuclear families (95%) compared to the non-members (84%); Parents who are NGO members show higher levels of Education and than non-members and the members own more household assets than the non-members.

The Three Way Analysis of Variance for the psycho-social variables by respondents' NGO membership of parents, sex and ages have produced the following results:

1. Significant differences were found between the member and non-member groups in problem solving (cognitive) abilities measured by block design test (F = 23.15; df = 1, 280; p<.000) and the picture completion test (F = 32.84; df = 1, 280; p<.000); time spent in working hours (F = 7.11; df = 1, 280; p<.008) and recreation hours (F = 10.14; df = 1, 280; p<.002).

Children of NGO-members showed significantly better performance in block design test and picture completion test than children of non-members. On the other hand children of NGO-member parents spent more time in working and less time in recreation.

2. Significant differences were found between rural boys and girls in block design test (F = 15.54; df = 1, 280; p<.000), Health and Social knowledge

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($F = 9.47$; $df = 1, 280$; $p < .002$), achievement motivation ($F = 10.49$; $df = 1, 280$; $p < .001$), working hours ($F = 66.76$; $df = 1, 280$; $p < .000$) recreation hours ($F = 28.15$; $df = 1, 280$; $p < .000$).

Boys showed better performance than girls in block design test, health and social knowledge and in the level of achievement motivation. On the other hand girls spent more time in working and less time in recreation than boys.

3. The different age groups show significant differences in health and social knowledge ($F = 2.73$; $df = 4, 280$; $p < .03$) time spent in learning ($F = 4.20$; $df = 4, 280$; $p < .003$) and working ($F = 3.27$; $df = 4, 280$; $p < .01$). Older children have more health and social knowledge, and spend more time in learning and working.

4. Significant Interaction Effect was obtained for Sex and Parents' NGO membership in Block Design test ($F = 11.77$; $df = 1, 280$; $p < .001$); Picture Completion test ($F = 6.96$; $df = 1, 280$; $p < .009$); Learning hours ($F = 4.85$; $df = 1, 280$; $p < .03$) and Recreation hours ($F = 5.51$; $df = 1, 280$; $p < .02$).

The mean values of the above variables delineates that boys and girls within the member or the non-member groups have performed differentially in these measures taken.

5. Significant Interaction Effect was also found in Age by Sex in working hours ($F = 11.77$; $df = 1, 280$; $p < .001$).

Although the trend of average working hours shows a rise with increasing age, it is not linear but rather varies with different ages. At 14 years, the girls show the highest average hours of work while 14 years boys show the lowest average hours of work.

The correlation coefficients among the different variables show the following significant relationships:

- Respondents' Age shows a significant positive relation with Health and Social knowledge ($r = 0.12$; $p < .05$); Learning hours ($r = 0.12$; $p < .05$); and Working hours ($r = 0.16$; $p < .01$) but a ~~negative~~ *inverse* correlation with picture completion test ($r = 0.12$; $p < .05$).
- Respondents' Fathers Educational level shows a positive correlation with performance in block design test ($r = 0.36$; $p < .01$) and picture completion test ($r = 0.32$; $p < .01$).
- Respondents' Mothers' Educational level shows a positive correlation with performance in block design test ($r = 0.23$; $p < .01$); picture completion test ($r = 0.24$; $p < .01$); self esteem ($r = 0.12$; $p < .05$); health and social knowledge ($r = 0.13$; $p < .05$); and learning hours of children ($r = 0.12$; $p < .05$).
- Respondents' performance in Block design test shows positive correlation with picture completion test ($r = 0.43$; $p < .01$), health and social knowledge ($r = 0.16$; $p < .01$), recreation hours ($r = 0.198$; $p < .01$).
- Health and Social knowledge shows a positive correlation with self-esteem ($r = 0.172$; $p < .01$).
- Working hours show a negative correlation with recreation hours ($r = 0.51$; $p < .01$), learning hours ($r = 0.207$; $p < .01$); block design test ($r = 0.27$; $p < .01$); picture completion test ($r = 0.116$; $p < .05$) achievement motivation ($r = 0.15$; $p < .05$).
- Recreation hours show positive significant correlation with block design ($r = 0.198$; $p < .01$) and achievement motivation ($r = 0.24$; $p < .01$).

The findings of the study have brought into surface many dimensions of psychosocial development of children in rural Bangladesh along with their relationship with the impact of NGO interventions. Children of NGO member and non-member were not found to differ much in the psychosocial variables considered in this study. The main differences were found in problem solving ability, where children of NGO-members were found to have better performance than children whose parents are not NGO-members. On the other hand, children, especially female children of NGO member spend more time in working and less on recreation compared to children of non-members. This indicates a differential work distribution and leisure time among families whose parents are NGO members and those who are not. Rural girls and boys show significant differences in important aspects of psychosocial development. Boys show an overall better performance than girls. Possible reason for this may be the socialization pattern that prevails in the Bangladesh rural society where there are little opportunities for girls to aspire for achievement, acquire knowledge and problem solving abilities. The different age groups also do not show much difference in their psychosocial development. It was found that with increasing age there is an increase of health and social knowledge, learning and working hours. But this relationship is not linear. Significant interaction effects of sex and parents' NGO membership has brought into attention that sons of NGO members performed better in most of the measures taken for psychosocial variables than the other three groups.

Highlight the need of

The study invites further investigation to look deeper into the psychosocial development pattern of rural children and also in relations with the various development programs being undertaken by Government and Non-government sectors to have a better understanding of the transmission of the benefits of development programs from parents to children.

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APPENDICES

APPENDIX – I : List of Unions and Schools

Name of Union	Name of School
Amin pur	Sonargaon High School
Sambhupur	Hossainpur M.P. Union School
Mograpara	Mograpara H.G.G Sriti Biddalay
Dhonbari	Dhonbari Nowab Institute
Beertara	Kendua High School
Paishka	Paishka Girls School
Nilerpara	Nilerpara High School
Konabari	Konabari M. A. Kuddus High School
Bason	Alekjan Balika High School
Rajapur	Al-Haj Siddique High School Sohagpur Shyam Kishore High School Massat Baria High School G.D. High School Tamai Bohumukhi High School
Harinarayanpur	Harinarayanpur Union High School Arun-Chandra High School Pour Kallyan High School Balika Biddya Niketon
Laxminarayanpur	M. A. Rashid High School
Jogiful	Government Laboratory High School B.I.T Junior High School Teligati Junior High School
Sharsha	Sharsha Government High School

APPENDIX-II: LIST OF NGOs

GRAMEEN BANK

PROSHIKA

ASSOCIATION FOR SOCIAL ADVANCEMENT (ASA)

PARASH

ANUPAM

BRAC

MENNONITE CHRISTIAN COMMUNITY (MCC)

PALLI KARMA SHAHAYAK FOUNDATON

BANGLADESH ASSEMBLY OF GOD

SAMAJ KALLYAN SAHAJJO SHANGSTHA

PROJUKTI SAHAJJO SANGSTHA

FAMILY HEALTH CLINIC

KINSUK

BURO TANGAIL

FAMILY PLANNING ASSOCIATION OF BANGLADESH

BANCHTE SEKHA

CARE

APPENDIX-III: Tables of Mean Values**Table-I: Mean values of Block Design by Age, Sex and Parents' NGO-membership**

Age	NGO-Member		Non-member		Total
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	
12 years	32.11	25.57	14.13	24.70	24.18
13 years	30.13	25.70	14.33	25.22	26.71
14 years	31.24	23.57	25.79	22.06	25.27
15 years	29.42	25.16	24.22	23.20	24.48
16 years	33.00	24.25	20.15	20.00	26.31
Total	31.18	24.62	28.00	23.04	

Table-II: Mean values of Picture Completion by Age, Sex and Parents' NGO-membership

Age	NGO-Member		Non-member		Total
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	
12 years	14.11	12.56	13.33	15.50	13.88
13 years	15.21	12.35	11.27	11.22	12.51
14 years	14.60	12.60	10.15	10.06	11.85
15 years	13.50	13.58	08.69	12.60	12.09
16 years	13.33	13.13	10.40	10.00	11.72
Total	14.15	12.84	10.77	11.88	

Table-III: Mean values of Achievement Motivation by Age, Sex and Parents' NGO-membership

Age	NGO-Member		Non-member		Total
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	
12 years	14.78	15.29	15.00	14.30	14.84
13 years	14.50	14.05	14.70	15.06	14.58
14 years	15.08	14.27	15.37	14.50	14.81
15 years	14.67	14.67	15.69	14.20	14.78
16 years	17.33	15.00	14.80	15.00	15.53
Total	15.27	14.66	15.11	14.59	

Table-IV: Mean values of Self-Esteem by Age, Sex and Parents' NGO-membership

Age	NGO-Member		Non-member		Total
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	
12 years	75.33	75.14	81.67	76.23	77.09
13 years	72.83	75.93	77.65	74.11	75.13
14 years	75.80	73.81	75.17	73.77	74.64
15 years	74.25	76.38	75.77	72.20	74.65
16 years	74.67	73.88	71.00	78.00	74.39
Total	74.58	75.03	76.25	74.86	

Table-V: Mean values of Health and Social Knowledge by Age, Sex and Parents' NGO-membership

Age	NGO-Member		Non-member		Total
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	
12 years	12.89	12.43	12.67	11.70	12.42
13 years	14.33	14.65	14.34	13.28	14.15
14 years	14.60	13.50	14.44	13.13	13.92
15 years	15.17	13.75	14.54	13.90	14.34
16 years	13.33	12.63	17.20	14.50	14.42
Total	14.06	13.39	14.64	13.30	

Table-VI: Mean values of Learning hours by Age, Sex and Parents' NGO-membership

Age	NGO-Member		Non-member		Total
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	
12 years	09.83	09.00	09.00	10.95	09.70
13 years	09.44	09.58	10.17	09.22	09.60
14 years	09.46	10.03	10.70	09.08	09.82
15 years	11.25	10.63	10.31	10.90	10.77
16 years	10.33	10.00	10.20	10.00	10.13
Total	10.06	09.85	10.08	10.03	

Table-VII: Mean values of Working hours by Age, Sex and Parents' NGO-membership

Age	NGO-Member		Non-member		Total
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	
12 years	1.22	0.85	1.67	1.00	1.19
13 years	1.23	2.70	0.91	2.00	1.79
14 years	0.90	3.02	0.85	2.78	1.89
15 years	1.96	3.04	1.42	1.25	1.92
16 years	0.33	3.25	1.80	1.88	1.82
Total	1.13	2.57	1.33	1.78	

Table-VIII: Mean values of Recreation hours by Age, Sex and Parents' NGO-membership

Age	NGO-Member		Non-member		Total
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	
12 years	2.83	2.79	3.50	2.50	2.91
13 years	2.29	1.53	2.60	2.33	2.19
14 years	2.78	1.27	2.74	2.40	2.30
15 years	2.54	2.13	2.42	2.20	2.32
16 years	3.33	1.50	3.00	2.00	2.46
Total	2.75	1.84	2.85	2.29	

APPENDIX – IV: INSTRUMENTS

Questionnaire

Introduction: We are conducting a research on children. To do this research we will need to collect some information from you. We will also give you some tasks to perform. We hope that you perform the tasks with attention and answer our question sincerely. The results of this research will depend much on your cooperation.

Name of District:.....

Name of Division:

A. Socio-Economic and Demographic Information

1. Name of respondent:

2. Age:

3. Sex: 1. Boy 2. Girl

4. Name of School:.....

5. Type of School: 1) Government 2) Non-government 3) NGO operated

6. Class:.....

7. Roll number:

8. Number of Siblings:.....

9. Birth order:

10. Father's occupation:

11. Father's Education Qualification:

12. Father's is a NGO-member: 1) Yes 2) No

If yes, name of the NGO:

13. Mother's occupation:

14. Mother's Education Qualification:

15. Mother is a NGO-member: 1) Yes 2) No

If yes, name of the NGO:.....

16. Family type: 1) Nuclear 2) Joint

17. Where do you collect drinking water from?

1) pond 2) canal / river 3) well 4) Tube-well

18. What kind of latrine do you use?

1) open space/field/bush 2) pit-latrine 3) slab-latrine

19. Where do you go for treatment of illness?

1) traditional healer 2) ayurvedic 3) doctor / hospital

20. Which of the items mentioned below do you have in your house?

1) chicken-ducks	2) almirah	3) bi-cycle
4) cattle	5) tube-well	6) motor-cycle
7) chair-table	8) radio	9) khat (cot)
10) sewing machine		

B. Cognitive Development: Problem Solving Tasks

Now you will be given some tasks to do. These tasks are simple and fun. Each task will be explained to you. Hopefully you will enjoy doing them.

B.1. Block Design

Here we have four pieces of wooden blocks. All of them are of the same size and colour. Each of the block has two sides completely red and two sides completely white and the rest two sides are half red and half white (show each of the sides to the respondents when explaining). In this book there are some designs (show the book). You will have to make these designs with the wooden blocks as quickly as you can. I will show you the first one.

Instruction for the investigator

Trial – 1 (45 seconds): Assemble the blocks to make the first design from the booklet in front of the child. Then scramble the blocks and instruct the respondent to construct the same design. If the respondent can successfully construct the design within the time-limit then mark ‘p’ against the 1st, 2nd and 3rd trial in the record sheet. Then allow the respondent to continue with design # 4 and proceed to make the other designs in order. the test is discontinued if any design is constructed wrongly or could not be completed in two consecutive trials. If the respondent cannot construct design # 3 in the first trial then mark ‘f’ against design # 3 and proceed to Trial –2.

Trial – 2 (45 seconds): Demonstrate the construction of design # 3 again. Then scramble the wooden blocks and ask the respondent to make the same design. If correctly constructed then ask the respondent to construct design # 1 and 2. If the respondent can construct the designs correctly then mark with ‘p’ against both the designs and proceed to design # 4 and so on. Respondent will continue with construction of the designs according to the booklet until incorrect construction or failure to construct within the time-limit in two consecutive trials.

The respondent will have four wooden blocks for design # 4 to 9. Five more blocks are to be added, total nine blocks, for design # 10 to 12.

Timing is to be recorded in the record sheet, with a help of a stop-watch, for all the designs attempted.

The record-sheet is as follows:

Design	Time-limit	Time-Taken by respondent	Score (to be filled-up by researcher)
01. Two blocks	30 seconds		
02. Four blocks	45 seconds		
03. Four blocks	45 seconds		
04. Four blocks	45 seconds		
05. Four blocks	45 seconds		
06. Four blocks	75 seconds		
07. Four blocks	75 seconds		
08. Four blocks	75 seconds		
09. Four blocks	75 seconds		
10. Nine blocks	120 seconds		
11. Nine blocks	120 seconds		
12. Nine blocks	120 seconds		
		Total score =	

B. 2 Picture Completion Test

You will be shown some pictures. In every picture there is something missing. You will have to see the picture carefully and point out the missing part.

Instruction to the investigator: Start with the sample item. If the respondent cannot answer correctly show the missing part and say the correct answer. After showing the sample item, show all the pictures one by one. The time-limit of each item is 20 seconds, including the sample items. Each item has only one trial. The test is to be discontinued if the respondent cannot produce the correct answers in five pictures in five consecutive trials. The respondent may point to missing part if s/he cannot say the name of the part.

Record Sheet for Picture Completion Test

Picture #	Picture	Correct answer	Correct/Incorrect	Score (to be filled by researcher)
Sample	Pencil	Lead		
01.	Fox	Ear		
02.	Box	Flap		
03.	Cat	Whiskers		
04.	Hand	Fingernail		
05.	Elephant	Leg		
06.	Mirror	Doll		
07.	Man	Watchband		
08.	Door	Hinge		
09.	Ladder	Step		
10.	Clock	Number 11		
11.	Belt	Holes		
12.	Women's face	Eyelashes		
13.	Dice	Sixth dot of the right dice		
14.	Dresser	Knob		
15.	Lear	Vein		
16.	Light bulb	Filament		
17.	Scissors	Screw		
18.	Whistle	Slot		
19.	Male Profile	Eyebrow		
20.	Fish	Gills		
21.	Trellis	Piece of lattice		
22.	House	Shadow of tree		
23.	Umbrella	Spokes		
24.	Tennis shoe	Eyelet		
			Total	

C. Activity Profile

Now I would like to know from you how you spend your day from morning till you go to bed at night. (e.g: what do you do in the early morning hours?)

Instruction to the investigator: Fill-up the format according to the activities done at different time of the day.

Format for Recording Activities with Corresponding hours:

Time of Activities	Activities done
Before going to school	
School hours	
After coming back from school	
Evening	
Night	
Before going to bed	

(for researcher to fill-up)

Hours of learning :

Hours of work:

Hours of recreation:

D. Achievement Motivation Scale (Self-administered)

Read the following sentences carefully. Complete each of the sentences by choosing any one of the two given answers. Choose the answer that describes you the best and put a tick mark on it. Please attend all the items in the given sequence, do not skip an item and come back to it later.

01. I prefer

- a) working with others.
- b) working by myself.

02. I prefer jobs

- a) that I might not be able to do.
- b) which I am sure I can do.

03. I would rather learn

- a) fun games.
- b) games where I would learn something.

04. I prefer a game

- a) where I am better than anyone else.
- b) where everyone is about the same.

05. I would rather

- a) play a team game.
- b) play against just another person.

06. I would rather

- a) wait one or two years and have my parents buy me one big present.
- b) have them buy me several smaller presents over the same period of time.

07. When I am sick, I would prefer

- a) rest and relax.
- b) try to do my schoolwork.

08. I do

- a) like getting reports before the class.
- b) don't like getting reports before the class.

09. Before class tests I am
- a) often nervous.
 - b) hardly ever nervous.
10. When I am playing in a game or sport I am
- a) more interested in having fun than with winning.
 - b) more interested in winning.

E. Self – Esteem Scale (self-administer)

The following sentences describes about one's self concept. Read the sentences carefully. You have three choices to respond to the sentences – true, don't know and 'not true'. If the sentence correctly describes you put a tick mark in the 'true' column; if the sentence does not describe you at all, put a tick mark in the 'not true' column; and if you cannot decide whether the sentence describes you or not, put a mark in the 'don't know' column but try to put least possible mark in this column. Please attend all the items in the given order and answer as quickly as you can.

Sl. #	Items	True	Don't know	Not true
01.	I have as many friends as other children of my age.			
02.	I am not as popular as other children of my age.			
03.	In the kinds of things that children of my age like to do, I am as good as most of the others.			
04.	Children of my age often pick on me.			
05.	Others like my company.			
06.	I usually keep to myself because I am not like other children of my age.			
07.	Others want to be like me.			
08.	If I were different I would have many friends.			
09.	I can be a good leader.			
10.	I am not the kind of person who can solve others problems.			
11.	My parents are proud of me.			
12.	No one pays attention to me at home.			
13.	My parents think that I am reliable.			
14.	My parents would be glad if they could exchange me for somebody else.			
15.	My parents tries to understand me.			

16.	My parents have high expectation from me.			
17.	I am an important person in my family.			
18.	I often feel unwanted at home.			
19.	My parents believe that I will be a success in the future.			
20.	I often wish that I had been born into another family			
21.	My teachers expect too much of me.			
22.	I am as good as my classmates in doing the kinds of things we do in school.			
23.	I often feel worthless in school.			
24.	I am usually proud of my school results.			
25.	School is harder for me than most other children.			
26.	My teachers are usually happy with my school work.			
27.	Most of my teachers do not understand me.			
28.	I am an important person in my class.			
29.	I do not achieve expected results in examinations			
30.	I feel fortunate to have the kind of teachers I have had since I started school.			

F. Knowledge on Health and Social Issues

Read the following questions carefully and mark the correct answer:

01. What is the causes of night-blindness?
 - a) weakness
 - b) vitamin-A deficiency
 - c) diarrhoea
 - d) do not know
02. What is the essential requirement for development of intelligence?
 - a) rice and potatoe
 - b) oral saline
 - c) iodine
 - d) do not know
03. Which of the following food carry most vitamin?
 - a) meat and fish
 - b) fruit and vegetable
 - c) rice and pulse
 - d) do not know
04. When a child gets worm, s/he will
 - a) stop playing
 - b) stop gaining weight
 - c) will become night blind
 - d) do not know
05. In case of diarrhoea, one must take plenty of
 - a) fruits
 - b) water
 - c) oral saline
 - d) do not know
06. Safe drinking water
 - a) prevent water borne disease
 - b) prevents only diarrhoea
 - c) increase nutrition
 - d) do not know

07. The cause of malnutrition is
- a) lack of treatment
 - b) lack of awareness
 - c) lack of education
 - d) do not know
08. Who suffer most from malnutrition?
- a) women of all age
 - b) children of all age
 - c) children aged under five
 - d) do not know
09. What is balance diet?
- a) high cost food items, like big fish, beef, apple, grapes, etc.
 - b) low cost food items like small fish, vegetable, guava, etc.
 - c) combination of food items which helps growth and provides energy.
 - d) do not know.
10. What are the basic rights of children?
- a) education, health and work
 - b) education, development and security
 - c) education, health, development and security
 - d) do not know.
11. Legal age of marriage for women is
- a) 20 years
 - b) 18 years
 - c) 16 years
 - d) do not know
12. Upto what level is child education made compulsory by the –
- a) government?
 - b) primary
 - c) secondary
 - d) S.S.C
 - e) do not know

13. Which of the following is not Child Right?
 - a) Right to education and treatment
 - b) Right to vote and employment
 - c) Right to security and development
 - d) do not know

14. Which one of the following is a crime?
 - a) dowry, hazardous child labor, child trafficking
 - b) child-marriage, child trafficking, school drop-out
 - c) hazardous child labor, dowry
 - d) do not know

15. What class of people live in the society?
 - a) those who have land and property
 - b) people who have power
 - c) rich, middle-class, and poor
 - d) do not know

16. Who control the society?
 - a) Men from all class
 - b) resourceful men and women
 - c) resourceful men only
 - d) do not know

17. What can be done to have Equal Rights in the Society?
 - a) Increase business and trade
 - b) population reduction
 - c) increase solidarity, awareness and self-reliance
 - d) do not know

18. What is environment pollution?
 - a) lack of sufficient trees
 - b) lack of fresh air, safe water and fertile soil
 - c) polluted water in pond, canals and rivers
 - d) do not know

19. What harm resulting from environment pollution?

- a) fish scarcity and soil infertility
- b) rise in poverty
- c) fall in employment
- d) do not know

20. In what age children are given the preventive injection for six major diseases

- a) one year to three years
- b) every three months, from one-month old
- c) anytime from six months to one-year
- d) do not know

Name and Signature of investigator:.....

Date:

মনোবিজ্ঞান বিভাগ ঢাকা বিশ্ববিদ্যালয়

প্রশ্নমালা

ভূমিকা : আমরা শিশু-কিশোরদের উপর একটি গবেষণা করছি। এই গবেষণার জন্য তোমার নিকট থেকে কিছু বিষয় জানতে চাইবো। এজন্য তোমাকে কিছু প্রশ্ন জিজ্ঞেস করবো। তাছাড়া তোমাকে কাজ করতে দিব। আশা করছি তুমি মনোযোগ দিয়ে এই কাজগুলো করবে এবং সঠিকভাবে প্রশ্নের উত্তর দিবে। এই গবেষণার ফলাফল অনেকটা নির্ভর করবে তোমার সহযোগিতার উপর।

জেলা :

বিভাগ :

A. Socio-Economic and Demographic Information

- ১। নাম :
- ২। বয়স :
- ৩। লিঙ্গ : ১) ছেলে ২) মেয়ে
- ৪। স্কুলের নাম :
- ৫। স্কুলের ধরন : ১) সরকারী ২) বেসরকারী ৩) এনজিও পরিচালিত
- ৬। শ্রেণী :
- ৭। রোল নং :
- ৮। ভাইবোনের সংখ্যা :
- ৯। জন্মক্রম :
- ১০। বাবার পেশা :
- ১১। বাবার শিক্ষাগত যোগ্যতা :
- ১২। বাবা এনজিও সদস্য : ১) হ্যাঁ ২) না
উত্তর হ্যাঁ হলে, এনজিওর নাম :
- ১৩। মার পেশা :
- ১৪। মার শিক্ষাগত যোগ্যতা :
- ১৫। মা এনজিও সদস্য : ১) হ্যাঁ ২) না
উত্তর হ্যাঁ হলে, এনজিওর নাম :
- ১৬। পরিবারের ধরন : ১) একক ২) যৌথ
- ১৭। তোমরা কোথা থেকে খাবার পানি সংগ্রহ কর ?
১) পুকুর ২) খাল, নদী ৩) কুয়া ৪) নলকূপ/টিউবয়েল
- ১৮। তোমরা কোন ধরনের পায়খানা ব্যবহার কর ?
১) খোলা জায়গা, মাঠ, জংগল ২) কাঁচা পায়খানা ৩) স্যানিটারী ল্যাট্রিন
- ১৯। অসুখ হলে সাধারণত চিকিৎসার জন্য কোথায় যাও ?
১) ঝাড়ফুঁক, ওঝা, তাবিজ, পানি পড়া ২) কবিরাজি
৩) হাসপাতাল, ডাক্তার, ডিস্পেন্সারী
- ২০। নিম্নে উল্লেখিত কোন কোন জিনিসগুলো তোমাদের বাড়িতে আছে :
১) হাঁস-মুরগী ৪) গরু ৭) চেয়ার-টেবিল ৮ খাট
২) আলমারী ৫) টিউবওয়েল ৮) রেডিও ১০) সেলাই মেশিন
৩) সাইকেল ৬) মোটর সাইকেল

B. Cognitive Development : Problem solving tasks

এখন তোমাকে কিছু কাজ করতে দেওয়া হবে। কাজগুলো বেশ সহজ এবং মজার। প্রতিটি কাজ তোমাকে বুঝিয়ে দেওয়া হবে। আশা করছি এই কাজগুলো করতে তোমার ভাল লাগবে।

B. 1. Block Design

এখানে চারটি কাঠের টুকরো আছে। সবগুলো কাঠের টুকরো একই আকারের এবং রংয়ের। প্রতিটি টুকরোর দুইদিক সাদা এবং দুইদিক লাল, আর বাকি দুইদিক অর্ধেক সাদা ও অর্ধেক লাল (কাঠের টুকরো দেখিয়ে বোঝাতে হবে)। এই বইতে কিছু ডিজাইন রয়েছে। এই কাঠের টুকরোগুলো দিয়ে যত তাড়াতাড়ি সম্ভব এই ডিজাইনগুলো তোমাকে বানাতে হবে। আমি প্রথমে একটি করে তোমাকে দেখিয়ে দিচ্ছি।

Trial-1 : (সময় ৪৫ সেকেন্ড) : বইয়ের ৩ নং ডিজাইন করে দেখাতে হবে। তারপর কাঠের টুকরোগুলো এলোমেলো করে দিয়ে উত্তরদাতাকে বলতে হবে একই রকমের ডিজাইন তৈরী করতে। নির্দিষ্ট সময়ের মধ্যে যদি উত্তরদাতা ডিজাইনটি তৈরী করতে পারে তাহলে ১ম এবং ২য় ডিজাইন পাশ (p) দেখাতে হবে এবং ৪ নং ও তারপরের ডিজাইনগুলো বানাতে দিতে হবে। কোন ডিজাইন পরপর দুইবার ভুল বা নির্দিষ্ট সময়ের মধ্যে না করতে পারলে আর সুযোগ দেওয়া হবে না। উত্তরদাতা যদি ৩ নং ডিজাইন তৈরী করতে না পারে তাহলে ৩ নং ডিজাইন (f) দেখিয়ে Trial-2 দিতে হবে।

Trial-2: (সময় ৪৫ সেকেন্ড) : ৩ নং ডিজাইনটি আবার করে দেখাতে হবে। তারপর কাঠের টুকরোগুলো এলোমেলো করে দিয়ে উত্তরদাতাকে বলতে হবে আরেকবার চেষ্টা কর এই ডিজাইন তৈরী করতে। ৩ নং ডিজাইন তৈরী করতে পারলে উত্তরদাতাকে ১ ও ২ নং ডিজাইনের ছবি দেখাতে হবে এবং তৈরী করতে বলতে হবে। যদি উত্তরদাতা সঠিকভাবে নির্দিষ্ট সময়ের মধ্যে ডিজাইনগুলো বানাতে পারে তাহলে তাকে পাশ (p) দেখাতে হবে। এরপর ৪ নং ও পরের ডিজাইনগুলো বানাতে দিতে হবে। কোন ডিজাইন পরপর দুইবার ভুল করলে আর সুযোগ দেওয়া হবে না।

৪ থেকে ৯ নং ডিজাইন পর্যন্ত উত্তরদাতার সামনে ৪টি কাঠের টুকরো থাকবে।

১০ থেকে ১২ নং ডিজাইন পর্যন্ত আরও ৫টি কাঠের টুকরো যোগ করতে হবে, মোট ৯টি টুকরো থাকবে।

প্রতিটি ডিজাইন শুরু করার সাথে সাথে সময় দেখতে হবে।

নিচের ছকে ডিজাইন অনুযায়ী সময় record করতে হবে।

ডিজাইন	নির্ধারিত সময়	কর্মসম্পাদনের সময়	মান
০১। দুই ব্লক	৩০ সেকেন্ড		
০২। চার ব্লক	৪৫ সেকেন্ড		
০৩। চার ব্লক	৪৫ সেকেন্ড		
০৪। চার ব্লক	৪৫ সেকেন্ড		
০৫। চার ব্লক	৪৫ সেকেন্ড		
০৬। চার ব্লক	৭৫ সেকেন্ড		
০৭। চার ব্লক	৭৫ সেকেন্ড		
০৮। চার ব্লক	৭৫ সেকেন্ড		
০৯। চার ব্লক	৭৫ সেকেন্ড		
১০। নয় ব্লক	১২০ সেকেন্ড		
১১। নয় ব্লক	১২০ সেকেন্ড		
১২। নয় ব্লক	১২০ সেকেন্ড		
		মোট	

B.2. Picture Completion

তোমাকে কিছু ছবি দেখাবো। প্রতিটি ছবিতে একটি অংশ বাদ আছে। প্রতিটি ছবি খুব ভাল করে দেখে তোমাকে বলতে হবে কোন অংশটি বাদ পড়েছে।

পরীক্ষকের প্রতি নির্দেশনা : প্রথমে sample item দিয়ে শুরু করতে হবে। যদি উত্তরদাতা সঠিক উত্তর না বলতে পারে তাকে বাদ যাওয়া অংশটি দেখিয়ে সঠিক উত্তরটি বলে দিতে হবে। sample item দুইটি দেখাবার পর প্রতিটি ছবি একটি

একটি করে দেখাতে হবে। sample item সহ প্রতিটি ছবির জন্য সময় রয়েছে ২০ সেকেন্ড। পর পর ৫টি ছবি নির্দিষ্ট সময়ের মধ্যে সঠিক উত্তর না দিতে পারলে আর সুযোগ দেওয়া হবে না।
উত্তরদাতার উত্তর যদি বোধগম্য না হয় তাহলে তাকে ছবিতে আংগুল দিয়ে দেখিয়ে দেয়ার জন্য বলতে হবে যে ছবির কোন অংশটি অসম্পূর্ণ বা বাদ পড়েছে।

ছবির নং	ছবি	সঠিক উত্তর	ঠিক/ভুল	মান
Sample	Pencil	Lead (পেন্সিলের শীষ)		
1.	Fox	Ear (কান)		
2.	Box	Flap		
3.	Cat	Whiskers (মোঁচ)		
4.	Hand	Fingernail (নখ)		
5.	Elephant	Leg (পা)		
6.	Mirror	Doll (পুতুল)		
7.	Man	Watchband (ঘড়ির বেল্ট)		
8.	Door	Hinge (কব্জা)		
9.	Ladder	Step (পাদানি)		
10.	Clock	Number 11 (১১ নং)		
11.	Belt	Holes (ছিদ্র)		
12.	Woman's face	Eyelashes (চোখের পাপড়ি)		
13.	Dice	Sixth dot of right die (৬ নং ফোটা)		
14.	Dresser	Knob (হাতল)		
15.	Lear	Vein		
16.	Light bulb	Filament (তার)		
17.	Scissors	Screw (স্ক্রু)		
18.	Whistle	Slot		
19.	Male Profile	Eyebrow (ভুরু)		
20.	Fish	Gills		
21.	Trellis	Piece of lattice		
22.	House	Shadow of tree (গাছের ছায়া)		
23.	Umbrella	Spokes		
24.	Tennis Shoe	Eyelet (ছিদ্র)		
			পূর্ণমান :	

C. Activity Profile

এখন আমি তোমার কাছ থেকে জানতে চাইবো তুমি কিভাবে সকাল থেকে রাত পর্যন্ত সময় কাটাও। তুমি খুব ধীরস্থিরভাবে উত্তর দিবে। যেমন সকাল ৬:০০ টা থেকে ৮:০০ টা পর্যন্ত তুমি কি কর ?

(পরীক্ষকের প্রতি নির্দেশনা : নিচের উল্লিখিত সময়সীমায় উত্তরদাতা সাধারণত কিভাবে ব্যয় করে থাকে সেটা জেনে লিখতে হবে, ঘড়ির সময় বুঝতে না পারলে দিনের ক্ষণ হিসেবে বুঝিয়ে দিতে হবে)

সময়	ক্রিয়া
সকালে স্কুলে যাবার আগে	
স্কুলের সময় সীমা	
বিকালে স্কুল থেকে ফিরে	
সন্ধ্যাবেলা	
রাতে	
রাতে ঘুমাতে যাবার সময়	

Hours of Learning :

Hours of work :

Hours of recreation :

D. Achievement Motivation (Self administered)

নিচের বাক্যগুলো মন দিয়ে পড় এবং সম্পূর্ণ কর। যেটা তোমার বেলায় সঠিক মনে হয় সেটাতে টিক (✓) দাও (ক এবং খ-এর মাঝে যেকোন একটি বেছে নিতে হবে)। প্রতিটি প্রশ্ন ক্রমানুসারে উত্তর দিতে হবে :

- ১। আমি বেশী পছন্দ করি :
 - ক) অন্যদের সাথে কাজ করতে
 - খ) নিজে একলা কাজ করতে
- ২। আমি সে সব কাজ বেশী পছন্দ করি :
 - ক) যেগুলো আমি নিশ্চিত করতে পারব
 - খ) যেগুলো আমি করতে পারব বলে নিশ্চিত নই।
- ৩। আমি খেলতে ভালবাসি
 - ক) মজার খেলা
 - খ) যেসব খেলায় কিছু শিখতে পারব
- ৪। আমি সে সব খেলা বেশী পছন্দ করি
 - ক) যেগুলো অন্যদের তুলনায় আমি ভাল খেলতে পারি
 - খ) যেগুলো অন্যরা সবাই একই রকম খেলতে পারে
- ৫। আমি বেশী পছন্দ করি
 - ক) দলীয় খেলা
 - খ) শুধুমাত্র একজনে সাথে খেলতে
- ৬। আমি আমার বাবা মার কাছ থেকে
 - ক) সারা বছর ছোট ছোট উপহার পেতে পছন্দ করি
 - খ) কয়েক বছর অপেক্ষা করে একটা বড় উপহার পেতে পছন্দ করি
- ৭। আমার শরীর খারাপ হলে
 - ক) আমি বিশ্রাম নিতে পছন্দ করি
 - খ) স্কুলে কাজ করতে চেষ্টা করি

- ৮। আমি পছন্দ করি
ক) সকলের সামনে পরীক্ষার ফলাফল পেতে
খ) সকলের সামনে পরীক্ষার ফলাফল না পেতে
- ৯। পরীক্ষার আগে আমি
ক) ভীত থাকি
খ) কখনই ভীত থাকি না
- ১০। আমি খেলায় বা স্পোর্টসে অংশগ্রহণ করি
ক) শুধুমাত্র মজা পাবার জন্য
খ) জয়ী হবার জন্য

E. নিচে কতগুলো বাক্য রয়েছে যা নিজের সম্পর্কে নিজের ধারণাকে বর্ণনা করে। এই বাক্যগুলো মনোযোগ দিয়ে পড়। এই বাক্যগুলোর প্রতি তুমি তিনভাবে উত্তর দিতে পারো। যদি কোন বাক্য তোমার নিজের সাথে মিলে যায় তাহলে 'সঠিক' ঘরে টিক (✓) চিহ্ন দাও, যদি না মিলে তাহলে 'ঠিক না' ঘরে টিক (✓) চিহ্ন দাও আর যদি কোন সিদ্ধান্তে না আসতে পারো তাহলে 'জানি না' ঘরে চিহ্ন দাও। ক্রমানুসারে প্রতিটি বাক্যের পাশে তোমার মতামত জানাও।

নং	পদ	সঠিক	জানি না	ঠিক না
১।	আমার সমবয়সীদের মত আমারও কয়েকজন বন্ধু-বান্ধব আছে			
২।	আমি আমার সমবয়সীদের মত তেমন জনপ্রিয় নই			
৩।	যে সব কাজ আমার সমবয়সীর করতে পছন্দ করে, সেগুলো আমিও ওদের মতই করতে পারি			
৪।	আমার সমবয়সীরা প্রায়ই আমাকে অপ্রীতিকর কাজ করানোর জন্য বেছে নেয়			
৫।	অন্যরা আমার সঙ্গে পেলে আনন্দ পায়			
৬।	আমি সাধারণত নিজেকে গুটিয়ে রাখি কারণ আমি আমার অন্য সমবয়সীদের মত নই			
৭।	অন্যরা আমার মত হতে চায়			
৮।	আমি যদি অন্যরকম হতাম তাহলে আমার অনেক বন্ধু থাকতো			
৯।	আমি ভাল নেতা হতে পারব			
১০।	আমি এমন নই যে অন্যদের সমস্যার সমাধান করতে পারি			
১১।	আমার মত সন্তান পেয়ে আমার মাতাপিতা গর্বিত			
১২।	বাড়ীর কেউ আমার প্রতি মনোযোগ দেয় না			
১৩।	আমর মাতাপিতা মনে করেন যে আমার উপর নির্ভর করা যায়			
১৪।	আমার মাতাপিতা আমাকে যদি অন্য কারুর সাথে বদল করতে পারতেন তাহলে খুশী হতেন			
১৫।	আমার মাতাপিতা আমাকে বুঝার চেষ্টা করেন			
১৬।	আমার মাতাপিতা আমাকে নিয়ে অনেক বেশী আশা করেন			
১৭।	আমার পরিবারের নিকট আমি একজন গুরুত্বপূর্ণ ব্যক্তি			
১৮।	মাঝে মাঝে মনে হয় বাড়ীতে আমাকে কেউ চায় না			
১৯।	আমার মাতাপিতা বিশ্বাস করেন যে আমি ভবিষ্যতে বড় কেউ হবো			
২০।	মাঝে মাঝে মনে হয় আমার অন্য কোন পরিবারে জন্ম হলে ভাল হতো			

২১।	আমার শিক্ষকরা আমাকে নিয়ে অনেক আশা করেন			
২২।	স্কুলে আমার সহপাঠীরা যা যা করতে পারে আমিও সেগুলো ভালভাবেই করতে পারি			
২৩।	স্কুলে নিজেকে মূল্যহীন মনে হয়			
২৪।	আমি আমার পরীক্ষার ফলাফলের জন্য গর্বিত			
২৫।	বেশীভাগ ছাত্রছাত্রীদের তুলনায় স্কুল আমার কাছে কঠিন মনে হয়			
২৬।	আমার কাজে আমার শিক্ষকরা খুশী থাকেন			
২৭।	বেশীভাগ শিক্ষকরা আমার অসুবিধা বুঝেন না			
২৮।	আমার ক্লাসে আমি একজন গুরুত্বপূর্ণ ব্যক্তি			
২৯।	পরীক্ষায় আমার যে ধরনের ফলাফল করা উচিত সে ধরনের ফল পাই না			
৩০।	স্কুলের শুরু থেকেই আমি যে সব শিক্ষক পেয়েছি তাতে নিজেকে ভাগ্যবান মনে হয়			

E. Awareness on Health and Social issues

নিচের প্রশ্নগুলি পড় এবং সঠিক উত্তরের পাশে টিক (✓) চিহ্ন দাও।

- ১। রাতকানা রোগ কি কারণে হয়?
 - ক) দুর্বলতার কারণে
 - খ) ভিটামিন 'এ' -এর অভাবে
 - গ) ডায়রিয়া হলে
 - ঘ) জানি না
- ২। শিশুর বুদ্ধি বিকাশের জন্য কি প্রয়োজন?
 - ক) ভাত ও আলু
 - খ) খাবার স্যালাইন
 - গ) আয়ুর্ডিন
 - ঘ) জানি না
- ৩। কোন খাবারে ভিটামিন-এ পাওয়া যায়?
 - ক) মাছ ও মাংস
 - খ) ফল ও শাকসবজি
 - গ) ডাল ও ভাত
 - ঘ) জানি না
- ৪। শরীরে কৃমি হলে, শিশুর-
 - ক) খেলা বন্ধ হয়ে যায়
 - খ) ওজন বাড়ে না
 - গ) রাতকানা রোগ হয়
 - ঘ) জানি না
- ৫। ডায়রিয়া হলে-
 - ক) বেশী ফল খেতে হয়
 - খ) বেশী পানি পান করতে হয়
 - গ) খাবার স্যালাইন খেতে হয়
 - ঘ) জানি না

- ৬। বিশুদ্ধ পানি খেলে-
ক) পানি বাহিত রোগ হবে না
খ) ডাইরিয়া হবে না
গ) পুষ্টি বাড়বে
ঘ) জানি না
- ৭। পুষ্টিহীনতার মূল কারণ কি?
ক) সুচিকিৎসার অভাব
খ) অজ্ঞতা, অসচেতনতা ও দরিদ্রতা
গ) শিক্ষার অভাব
ঘ) জানি না
- ৮। কারা বেশী অপুষ্টিতে আক্রান্ত হয়?
ক) সব বয়সের নারীরা
খ) সব বয়সের শিশুরা
গ) ৫ বছরের নীচে শিশুরা
ঘ) জানি না
- ৯। সুস্বাদু খাবার কি?
ক) দামী খাবার যেমন বড় মাছ, মাংস, আপেল, আঙুর
খ) সস্তা খাবার যেমন ছোট মাছ, শাক-সবজি, পেয়ারা
গ) যে খাবার খেলে শরীর বাড়ে এবং শক্তি পাওয়া যায়
ঘ) জানি না
- ১০। শিশুর মূল অধিকার কোনগুলো?
ক) শিক্ষা, স্বাস্থ্য ও কাজ
খ) শিক্ষা, বিকাশ ও নিরাপত্তা
গ) শিক্ষা, স্বাস্থ্য, বিকাশ ও নিরাপত্তা
ঘ) জানি না
- ১১। আইনতভাবে মেয়েদের বিয়ের বয়স -
ক) ২০ বছর
খ) ১৮ বছর
গ) ১৬ বছর
ঘ) জানি না
- ১২। কোন স্তর পর্যন্ত সরকার শিশু শিক্ষা বাধ্যতামূলক করেছে?
ক) প্রাথমিক
খ) মাধ্যমিক
গ) এস, এস, সি
ঘ) জানি না
- ১৩। কোনটি শিশু অধিকার নয়?
ক) শিক্ষা ও চিকিৎসা
খ) ভোটাধিকার ও কর্মসংস্থান
গ) বিকাশ ও নিরাপত্তা
ঘ) জানি না
- ১৪। কোনটি আইনত অপরাধ?
ক) যৌতুক, ঝুঁকিপূর্ণ শিশুশ্রম, শিশু পাচার
খ) বাল্যবিবাহ, শিশু পাচার, স্কুলে না যাওয়া

- গ) ঝুঁকিপূর্ণ শিশুশ্রম, যৌতুক
ঘ) জানি না
- ১৫। সমাজে কোন শ্রেণীর লোকেরা বাস করে?
ক) যাদের জমি-জমা ও সম্পদ রয়েছে
খ) ক্ষমতাবান শ্রেণীর লোকেরা
গ) ধনী, মধ্যবিত্ত ও গরীব শ্রেণী
ঘ) জানি না
- ১৬। সমাজকে পরিচালনা করে কারা?
ক) সব শ্রেণীর পুরুষেরা
খ) সম্পদশালী মহিলা ও পুরুষ
গ) সম্পদশালী পুরুষেরা
ঘ) জানি না
- ১৭। মৌলিক অধিকার সমানভাবে প্রতিষ্ঠার জন্য করণীয় কি?
ক) ব্যবসা-বাণিজ্য বৃদ্ধি
খ) জনসংখ্যা হ্রাস
গ) একতা, সচেতনতা, আত্মনির্ভরশীলতা
ঘ) জানি না
- ১৮। পরিবেশ দূষণ কি?
ক) অধিক পরিমাণ গাছপালার অভাব
খ) নির্মল বায়ু, নিরাপদ পানি এবং উর্বর মাটির অভাব
গ) নদী, খাল-বিল, পুকুরে দূষিত পানি
ঘ) জানি না
- ১৯। পরিবেশ দূষণের ফলে কি ক্ষতি হচ্ছে?
ক) মাছ মরে যাচ্ছে এবং মাটির উর্বরতা কমে যাচ্ছে
খ) দরিদ্রতা বৃদ্ধি পাচ্ছে
গ) কর্মসংস্থান হ্রাস পাচ্ছে
ঘ) জানি না
- ২০। কোন বয়সের শিশুদের ছয়টি রোগমুক্ত করার জন্য টিকা দেয়া হয়?
ক) এক বছর থেকে তিন বছর শিশুদের
খ) এক মাস বয়স থেকে প্রতি তিন মাসে
গ) ছয় মাস থেকে এক বছর বয়স পর্যন্ত যে কোন সময়ে
ঘ) জানি না

সাক্ষাতকার গ্রহণকারীর নাম ও স্বাক্ষর :

তারিখ :