DEVELOPMENT, IMPLEMENTATION AND EVALUATION OF A PARENTING INTERVENTION TO PROMOTE MOTHER-CHILD INTERACTION IN UNDERPRIVILEGED FAMILIES IN BANGLADESH

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Declaration

I declare that the research work, titled "development, implementation and evaluation of a parenting intervention to promote mother-child interaction in underprivileged families in Bangladesh" is my own work both in conception and execution. All the sources used and quoted indicated in this thesis have been acknowledged by means of complete reference.

I also declare that no portion of work referred to in the thesis has been submitted in support of an application for another degree or qualification of these or any other universities or institutes of learning.

Signature of the Researcher
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Date: 10th October 2023

Certificate of Supervisor

This is to certify that I have read the entire dissertation entitled "Development, implementation and evaluation of a parenting intervention to promote mother-child interaction in underprivileged families in Bangladesh" submitted by Nafiza Ferdowshi for her degree of Doctor of Philosophy in Educational and Counselling Psychology and this is a record of authentic research carried out by her under my direction and supervision.

Signature of the Supervisor

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Abstract

Bangladesh is a developing country with approximately 165 million inhabitants (Bangladesh Bureau of Statistics [BBS], 2018). Among this huge population, nearly 14.8% are living below the international poverty line (The World Bank, 2019) and 71.2% of women are literate (BBS, 2018). Research indicates that the quality of mother-child interactions has an immense impact on children's development and educational outcomes (Mihelic et al., 2017; UNICEF Bangladesh, 2010). The main objective of the research was to investigate the effectiveness of the International Child Development Program (ICDP) in order to enhance the quality of mother-child interaction for disadvantaged families in Bangladesh. More specifically, this study addressed five research questions; these were as follows: (i) Does engagement in an 8 week parenting intervention increase mothers' feelings of competence as a parent? (ii) Does participation in the intervention produce significant improvements in parenting practices? (iii) Does engagement in the intervention show significant improvements in mother-child positive interaction? (iv)What changes are found in the mothers' conception of their children due to attend the intervention? (v) What characteristics distinguishes mothers who benefitted the most from the intervention from those who benefitted the least? The ICDP is non-instructive, designed to identify and reactivate local cultural parenting practices and to improve positive parent-child interaction (Hundeide, 2010).

A mixed method design was used combining a single-blinded, randomised wait-listed control group trial with qualitative observations and interviews. One conveniently selected slum area was used where five intervention and five wait-listed control groups were formed. A total of 100 mothers participated in the intervention with random assignment to intervention (n=50) and wait-listed control groups (n=50). The inclusion criteria were that (i) participating families had a child aged one to three years; (ii) the

mothers would be primary caregivers; and (iii) mothers had no prior experience of attending any parenting intervention programs. Intervention and wait-listed control groups had received the ICDP's 8-week two hourly centre-based group sessions. Along with a demographic questionnaire, measures were included the parenting sense of competence scale (PSOC), the parenting subscale of the parenting and family adjustment scale (PAFAS), the infant-toddler version of the home observation for the measurement of the environment (IT-HOME), the 6-item observation rating scale (ORS) of positive interaction, the observational guide for identifying mothers' caregiving qualities, and the semi-structured interview guides. All participants were assessed at two points of time: Pre-test and post-test. In addition, intervention experience related interviews were completed at post-intervention. A log book was used to keep all the records during intervention implementation. Daily session of the intervention was measured by an observational measure and a semi-structured feedback interview. Ethical issues were cautiously considered for data collection phases. Quantitative data were analysed through SPSS software using chi-square and MANOVAs whereas qualitative data were analysed through thematic analysis.

This study findings indicated the effectiveness of the intervention in terms of both quantitative and qualitative data. Preliminary analyses of the study found that some of the sub-scales of three widely used measures, that is PSOC, PAFAS, and IT-HOME, were discarded from the main analyses due to their low reliability scores. The findings of main analyses identified that mothers' parental efficacy, parent-child relationship, and emotional and verbal responsivity were more important in promoting mother-child positive interaction for disadvantaged families of Bangladesh. Findings also showed a noticeable changes in mothers' parental satisfaction, coercive practices, maternal invlovement, and mediated interaction after receiving ICDP intervention. In consistent with quantitative findings, the qualitative observational analyses identified that all eight ICDP themes of positive mother-child interaction were more practiced in the intervention group mothers than in the wait-listed control mothers. A remarkable change was reported in the mothers' conception towards children measure between intervention and wait-listed control group. Findings revealed that children's motor abilities, socio-emotional relationship, and cognitive functioning were more exploring positive conceptions of the child to the intervention mothers. In contrast, control group mothers

more focused on negative conceptions of the child in terms of aggressive and non-compliant behaviour and less emphasised on children's abilities.

Mothers' experience of the intervention also found ICDP's main concepts of positive interaction that categorised as maternal sensitivity to the child, positive attitude towards child, talk to the child, maternal mediation, and self-regulation. Overall, intervention experience of the mothers highlighted the caregiving qualities of mothers, learning aspects from the intervention, and parenting practices that changed after attending the ICDP intervention.

This research also presented individual case studies to demonstrate the changes that occurred for the mothers in terms of their parenting practices. The mothers were selected as case studies from the intervention groups based on their responses on the quantitative and qualitative measures. By critically scrutinising data, the researcher found 12 cases who improved, 18 cases who did not change substantially, and 7 cases who did not improve from the intervention. Finally, the researcher selected six mothers who benefitted most and another five mothers who did not appear to benefit from the intervention. The individual case study analysis highlighted a comparative and deeper understanding of the mothers' perceived benefits from the intervention in terms of their living condition, family income, family type, and performance in the intervention.

In summary, the broader view of the findings indicated the partial effectiveness of the intervention from which some mothers were benefitted whereas some were not benefitted from the intervention due to the mothers' poor educational background, disadvantaged living conditions, self-reported measures, and lower cognitive functioning while answering the questionnaires. The strengths and weaknesses of this study were included along with its future implications in policy making and capacity building of promising practitioners. Disseminating the knowledge of positive mother-child inteaction on a larger scale would be helpful for underprivileged as well as privileged mothers and other caregivers to promote advanced parenting practices and developmental outcomes of the children.

Table of Contents

List of Figures

List of Tables

List of Abbreviations

ADHD: Attention Deficit Hyperactive Disorder

BBS: Bangladesh Bureau of Statistics

BEPS: Basic Education and Policy Support

CLC: Community Learning Circles

COS: Circle of Security

COS-P: Circle of Security-Parenting

CRC: Convention on the Rights of the Child

ECCE: Early Childhood Care and Education

ECD: Early Childhood Development

FGD: Focus Group Discussion

HOME: Home Observation for Measurement of the Environment

HOPE: Hands-On Parent Empowerment

ICDDR, B: International Centre for Diarrhoeal Disease Research, Bangladesh

ICDP: International Child Development Program

ICDS: Integrated Child Development Services

IY: Incredible Years

IT-HOME: Infant-Toddler version of the Home Observation for the Measurement of the Environment

MLE: Mediated Learning Experience

MoCHTA: Ministry of Chittagong Hill Tracts Affairs

MoF: Ministry of Finance

MoJ: Ministry of Justice

MoWCA: Ministry of Women and Children Affairs

NCTB: National Curriculum and Textbook Board

NGOs: Non-Government Organisations

NIPORT: National Institute of Population Research and Training

ORS: Observational Rating Scale

PAFAS: Parenting and Family Adjustment Scale

PSOC: Parenting Sense of Competence

RAs: Research Assistants

RCT: Randomised Controlled Trial

SPSS: Statistical Package for Social Sciences

Triple P: Positive Parenting Program

UIS: UNESCO Institute for Statistics

UNESCO: United Nations Educational, Scientific and Cultural Organisations

UNICEF: United Nations Children's Fund

VIPP: Video-feedback Intervention to promote Positive Parenting

VIPP-SD: Video-feedback Intervention to promote Positive Parenting-Sensitive Discipline

ZPD: Zone of Proximal Development

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Chapter 1: Introduction

It is well known that quality parental care in early childhood positively contributes towards children's education and development (Mihelic et al., 2017; UNICEF Bangladesh, 2010). Early mother-child sensitive interactions indicate developing attachment security (Bakermans-Kranenburg et al., 2003; McElwain & Booth-LaForce, 2006) healthy relationships, and socio-emotional skills (Leerkes et al., 2009). Although parenting is associated with positive experiences, such as watching children grow up, it also poses various challenges and demands in terms of the adaptation to new roles, added responsibilities, sleep deprivation, and physical exhaustion. These challenges in turn create difficulties in developing effective parenting skills and confidence and may increase couple conflict and psychological distress, especially if postnatal depression is present (Feeney et al., 2001; Pinquart & Teubert, 2010). In addition, evidence shows that parental distress and impaired parenting pose the risk of detrimental developmental outcomes in children. Therefore, supporting and guiding sensitive mother-child interactions and intervening during the first year of a child's life may prove promising as preventive interventions (McElwain & Booth-LaForce, 2006). Evidence also shows that positive parenting skills improve parental responsiveness or sensitivity, confidence or self-efficacy, and competence (Mihelic et al., 2017). A mother's sensitive response to a child's distress or negative emotions helps to develop a sense of efficacy in the child' ability to self-regulate (Bell & Ainsworth, 1972) and understand negative emotions to be acceptable rather than problematic (Stern, 1985). The responses can range from providing scaffolding or assistance in bringing about self-soothing behaviours by offering security objects, fostering attention shifting or the ability to flexibly shift back and forth between mental sets by providing something visibly appealing to inspiring adaptive, problem-oriented responses. Thus, interventions focusing on educating and sensitising parents on skills which promote quality parent-child interactions play a key role in improving child development.

The current research focuses on the promotion of positive interactions between mothers and their children in a disadvantaged area of Bangladesh through the adaptation, implementation and evaluation of a parenting program. This chapter first introduces the background and context of the research. The objectives and the significance of the study are then outlined. Next, key concepts used within this study are briefly described. An outline of the methodology is then provided. The chapter concludes with an outline of the remaining chapters in this document.

1.1 BACKGROUND AND CONTEXT OF THE STUDY

Bangladesh comprises a deltaic landscape with a rich historical and vibrant cultural setting. Historically, this land was recognised as a part of the Indian sub-continent. It had been repeatedly ruled over by different people, ranging from Dravidians, Indo-Aryans, Mongol-Mughals, Arabs, Persians, Turks and Europeans. Over time, the population's adherence to religious values changed from Hinduism to Buddhism to Islam. Religion played a strong role in the division of the Indian sub-continent. Bangladesh (then known as East Bengal) was attached under the regime of Pakistan based solely on the fact that they had Muslim-majority populations. Bangladesh emerged as an independent nation in 1971 after a 9-month-long Liberation War (National Curriculum & Textbook Board [NCTB], 2013; van Schendel, 2009). This rapid socio-political change has had an immense impact on the socio-economic life of the people. Bangladesh is now predominantly a Muslim-majority country although people of other beliefs and over 40 indigenous groups reside here (Hamadani & Tofail, 2014).

As a developing country with a population of approximately 165 million, only 73.9% of the population is literate (BBS, 2018). Mothers have traditionally been responsible for the nurturing of children, so it is important to note that more than half of the female population (71.2%) is literate (BBS, 2018). One of the main reasons for low female literacy is the high rate of early marriage (64.9%), before the age of 18 (BBS, Statistics and Informatics Division [SID], & Ministry of Planning, 2015). Poverty is another issue in Bangladesh where 14.8% of the population is living below the international poverty line of US$ 1.90 per day (The World Bank, 2019). Poverty refers to "*pronounced deprivation in well-being"* (Haughton & Khandker, 2009, p.1), such as that resulting from poor income levels and the

inability to attain basic goods and services essential for survival with dignity, poor or lack of education, low levels of health, poor access to clean water and sanitation, inadequate physical security, lack of voice and insufficient capacity and opportunity to better individual life (The World Bank, n.d.). In addition, 41% of Bangladeshi children under 5 years of age are severely malnourished which is likely to have long-term effects on their physical and mental health (Ahmed et al., 2014). Other data show that 41% of children under five are stunted due to poor sanitation and hand washing practices, child feeding practices and status of women and girls in the family and society alongside a lack of access to food and healthcare (El-Saharty et al., 2014). In 2017, the prevalence of stunted children has been reduced to 31% in which 9% children are severely stunted (National Institute of Population research and Training [NIPORT] & The ICF, 2019). Recent evidence reveals a significant association between parental educational levels and the reduction of prevalence of childhood undernutrition (Hossain & Khan, 2018).

In Bangladesh, children are usually nurtured within the extended family, especially by grandparents, uncles, aunts, and/ or older siblings (Basic Education and Policy Support [BEPS] Activity, 2004). However, parenting knowledge is inadequate and insufficient and there is a lack of early childhood stimulation and interaction (Hamadani & Tofail, 2014). There are some traditional practices of Bangladeshi caregivers that stand out such as giving children oil massages, bathing them in the sun, shaving their hair within seven days of birth and tying a black thread around a body part and/or applying kohl on the forehead or over the eyelids to ward off bad spirits, all of which are considered to be reflections of their positive parenting practices and beliefs. Some inappropriate parenting practices have also been identified, such as dietary restrictions during pregnancy and lactation periods, providing a touch of honey and sugar water to newborns as the first thing they taste instead of breast milk, withdrawal of breastfeeding when the child is ill and introducing complementary foods before three months of age (Range et al., 1997). Such inappropriate and inadequate feeding practices are the determinants of children's poor nutrition. A study identified the influential factors that determined feeding practices for underprivileged infant and young children in Bangladesh. These factors were maternal occupation, household composition, access to cooking facilities, limited buying capacities, and poverty that indicated inadequate parenting

practices (Kabir & Maitrot, 2017). Appetite in children is another important contributor for nutritional intake and growth of children. In this regard, maternal work related stress considers as a barrier to understand the children's appetite cues (Naila et al., 2017).

Moreover, child rearing is influenced by gender issues in Bangladesh. For example, males are preferred when having children and valued in families in comparison to females (Kabeer et al., 2014). Such male dominating view is more strictly shaped in lower and illiterate parents. Their aim is to provide more education to their boys based on the belief that boys are more capable of attaining educational performance and professional roles in comparison to the girls (Sarker et al., 2017). Furthermore, most Bangladeshi parents believe in an authoritarian approach to child nurturing and demand respect, obedience and politeness from their children. Though children are closely attached to mothers, active interactions through singing, cooing, chatting and playing are not common practices in Bangladesh. Caregivers do not have adequate knowledge about toys and playing materials appropriate for children and even on how to create an environment encouraging play. Overall, the child is considered a being that has only nutritional needs and not much need of stimulation or early intervention (Ferdowshi, 2014; Hamadani & Tofail, 2014).

The government of Bangladesh has taken steps to ensure the rights and status of children. As a result, the Children Act 1974 was passed in an effort to ensure children's overall protection and rights. In addition, Bangladesh signed and ratified the Convention on the Rights of the Child (CRC) 1989 in 1990 where positive parenting and children's development were highlighted. Following this, the National Child Policy was formulated in 1994 (Ministry of Women and Children Affairs [MoWCA], 2011). A benchmark was set by the Child Care and Protection Act 2004 in which the best interests of the child received paramount consideration. The main principles of the act are-

> *Section 3 (a): "children are entitled to be protected from abuse, neglect and harm or threat of harm;*
> *Section 3 (b): a family is the preferred environment for the care and upbringing of children and the responsibility for the protection of children rests primarily with the parents"* (Ministry of Justice [MoJ], 2005, p. 7).

Subsequently, a far-reaching vision was adopted for the betterment of children of Bangladesh through the National Child Policy 2011. The fundamental principles of this policy were on ensuring child rights, alleviating child poverty, eliminating child abuse, ending gender-based discrimination and accepting children's views to enable their participation (MoWCA, 2011). Another child-focused policy was the Comprehensive Early Childhood Care and Development which sought to nurture and raise all children with care, security, dignity, affection and love for establishing a strong foundation for their development. It was approved in 2013 (MoWCA, 2013). A breakthrough movement was taken by passing the National Mental Health Act 2018. Thence, the National Mental Health Policy 2019 was approved and the National Mental Health Strategic Plan 2020-2030 has been carried out by the professionals of the Ministry of Health and Family Welfare. These provisions has been covered all relevant aspects of mental health including training of primary health care providers and parents in order to enhance children's developmental outcomes (Hossain et al., 2019; WHO, 2020). Though positive parenting is an integral part of such training programs, parenting intervention research was not primarily focused in the context of Bangladesh.

Positive parenting is associated with responsiveness, self-efficacy and competence that have been seen to have contributed to positive mother-child interactions. Parental responsiveness or sensitivity concerns the mother's ability to recognise her child's signals and appropriately act on those cues which is essential for development and promotion of secure mother-child attachment. Research shows that high levels of parental responsiveness are associated with quality parent-child interactions (Guralnick, 2006). Self-efficacy in parenting or a mother's belief that she can perform parenting activities effectively and competently is also related to a mother's responsiveness. Parenting competency can be seen as a mother's ability to shape her behaviour in a way that fulfils her child's needs (Mihelic, et al., 2017; Wittkowski et al., 2017). Overall, responsiveness, self-efficacy, and competency are essential for effective parenting. Given the lack of understanding of positive parenting practices described above, there is a strong need for Bangladeshi parents to be educated on the importance of reciprocal interactions and its impact on their children's development. There has been previous research surveying Bangladeshi

mothers in order to establish early childhood development (ECD) needs in the country. Findings indicated that mothers were typically the primary caregivers and that they remained mostly at home. While several positive child caring practices were identified, gaps were also found in mothers' knowledge on the upbringing of children, age-appropriate early learning and daily positive interactions (MoWCA, 2009; UNICEF Bangladesh, 2001). In light of these findings, the government of Bangladesh along with non-government organisations (NGOs) incorporated policies and projects regarding early childhood care and development in which parental programs were designed and implemented. However, these were specifically oriented towards health and nutrition rather than early learning (Hamadani et al., 2014). By focusing psychological wellbeing of the children, a not-for-profit advocacy, research, and capacity building organisation, Shuchona Foundation, has been established in 2014 and developed a manual for parents' training, Social Communication and Emotional Skill Development [SCESD] (https://www.shuchona.org/). This parent education-focused intervention implemented with parents and caregivers through the MoWCA and the Ministry of Health and Family Welfare as continuation of early childhood development in Bangladesh (Shuchona Foundation, 2020).

In summary, it can be said that the overall socio-cultural perspective in Bangladesh, traditional parenting and child caring practices, policies relevant to child rights and child care, and current ECD activities offer a platform to conduct this research. The need in Bangladesh is for parenting interventions in terms of enhancing mother-child interactions and sensitising them about the essence of reciprocal interactions rather than concentrating parenting programs only on health and nutrition as is currently the case.

1.2 PURPOSES, OBJECTIVES AND RESEARCH QUESTIONS

The purposes of this study are to adapt the International Child Development Program (ICDP) as a parenting intervention for Bangladeshi disadvantaged mothers of children aged 1-3 years, to implement the parenting program, and to evaluate the impact of the parenting program on mother-child interactions. An adaptation of the ICDP and its implementation procedure are described in Chapter 3 under Section 3.5.

The specific objective of this research is to investigate the effectiveness of the ICDP intervention. Overall, there are two research questions based on this objective.

1. What are the pre to post effects of the parenting intervention on parenting feelings of competence, parenting practices, and mother-child interactions?

2. Are there any significant differences in constructs such as- parenting sense of competence, parenting practices, and mother-child interactions between mothers of intervention groups and mothers of control groups?

More specifically, this study addresses five research questions. These are as follows:

1. Does engagement in an 8 week parenting intervention increase mothers' feelings of competence as a parent?

2. Does participation in the intervention produce significant improvements in parenting practices?

3. Does engagement in the intervention show significant improvements in mother-child positive interaction?

4. What changes are found in the mothers' conception of their children due to attend the intervention?

5. What characteristics distinguishes mothers who benefitted the most from the intervention from those who benefitted the least?

1.3 SIGNIFICANCE AND RATIONALE

As previously discussed, contextual factors in Bangladesh such as the illiteracy rates, poverty, and traditional child care practices, have led to the initiation of a variety of early childhood and parenting programs implemented through collaborations between the government and NGOs. Research has found that over 250 million children under five years of age in low- and middle-income countries are unable to reach their developmental capabilities due to poverty, lack of stimulation, poor health, and lack of nutrition (Black et al., 2017; Grantham-McGregor et al., 2007). Such delays in early childhood have a long-term negative effect in educational attainment and income and perpetuate an intergenerational cycle of poverty (Attanasio et al., 2022; Heckman et al., 2013). The number of children in Bangladesh not reaching their developmental capacity due to poverty is approximately 19 million (National Institute of Population Research and Training [NIPORT], Mitra and Associates, & Macro International, 2009). Such statistics are a cause for concern.

Existing reviewed Bangladeshi literature reported the scarcity of direct parent-involved interventions primarily focused on positive mother-child interactions, especially among families of lower socio-economic status. Poverty (Haughton & Khandker, 2009; McCoull & Pech, 1998) is a transgenerational construct. In general, poverty and disadvantaged conditions are inter-connected having an impact on parenting that in turn has an influence on children's lives. Research indicates that parents living in poverty are more likely to engage in harsh discipline (Skinnner et al., 2006), have poor communication skills (Hart & Risley, 2003), demonstrate a lack of sensitivity (Fonagy, 2008; Sharp & Fonagy, 2008), and have less positive interactions with their children (Albers et al., 2010). Previous studies have also revealed the intergenerational transmission of parenting practices (van IJzendoorn, 1992; Kitamura et al., 2009; Simons et al., 1991). For example, mothers who experienced more supportive nurturing throughout their own childhoods provide more of such care when interacting with their own children (Belsky et al., 2005). Altogether, it can be stated that the impact of individuals' living conditions and parenting practices are transferred from one generation to the next due to illiteracy and lack of parenting knowledge. Such continuity of intergenerational transmission identifies a clear connection among poverty, parenting

practices, and the importance of parenting interventions. In another way, it can be said that poverty and disempowerment go hand in hand. Positive parenting is a significant mediator in balancing the effects of poverty and disadvantage living conditions (Kiernan & Mensah, 2011). In the current study, the parenting intervention is designed to sensitise the mothers regarding positive parent-child interactions that in turn is expected to improve their parenting practices and sense of competence. Consequently, their children would be expected to learn about positive interactions while there would be a positive influence on their social and emotional development. Continuation of such kinds of parenting interventions will gradually sensitise a vast number of caregivers which may help them to recognise children's psycho-social needs and inspire them on educating their children. Consequently, children of sensitised mothers become more educated, financially independent, and improve their living conditions which lead to the transfer of these practices to the next generation, reduce the impact of poverty and desensitise parenting practices (Skar et al., 2019). In such a way, an intervention focused on mother-child interactions may mitigate the possible impact of poverty on children.

The demand for early childhood development (ECD) and relevant activities of the government have significantly increased in recent years, such as the approval of a Strategic Operational Plan of Comprehensive Early Childhood Care and Development (ECCD) Policy in 2016 and capacity building initiatives for government officials and other relevant actors in the ECCD area (Akhter, 2017). Most interventions, however, primarily focus on children rather than parents, including children's development, health, safety, nutrition, and school readiness (UNESCO, 2017). The interventions that do give attention to parents are only health and nutrition-based education programs, including responsive feeding and psychosocial stimulation. One of the most recent activities of the government is implementation of parenting intervention by focusing on social communication and emotion skills (SCESD) that was developed by Shuchona Foundation (see Section 1.1, paragraph 6). The gaps of this intervention are that the SCESD manual does not focus all developmental areas of children and educates parents in more instructive way. As the participants (mothers) of the proposed study are drawn from lower socioeconomic areas, it is likely that they have a lack of education and knowledge regarding child care practices. These mothers, who are the primary caregivers of children in Bangladesh, are not likely to be aware of the importance of the first 1,000 days of a child's life from conception to two years of age. This is the most

critical period for brain development and growth of a child (Hossain & Khan, 2018; de Onis et al., 2013). Thus, evidence support the association between poverty and detrimental child development due to poor maternal education, low responsivity, increased maternal stress and depression, poor childcare and inadequate home stimulation (Grantham-McGregor et al., 2007). In such circumstances, a remarkable change may occur because of early intervention. This intervention study is designed to focus on mothers of young children in the disadvantaged areas of Dhaka and therefore has the potential to make a difference to the developmental trajectories of children living in poverty.

The current study has been designed to address the existing intervention gap by explicitly promoting mother-child positive interactions in terms of assessing mothers' sensitivity, parenting skills, and feelings of competence. These types of parenting constructs have a potentially greater impact on mother-child interactions than do general parent education efforts (National Research Council & Institute of Medicine, 2000). As quality parental care in early childhood has been a key focus of international researchers, many evaluation studies have published findings on the association between early positive parent-child interaction and subsequent educational and developmental outcomes (Juffer et al., 2014; Mihelic, et al., 2017; UNICEF Bangladesh, 2010; Webster-Stratton & Taylor, 2001; Weiner et al., 1994). In line with these, the findings of this evaluation research might be helpful for policymakers as well as for professionals of early childhood programs developing a basic parenting intervention. The existing interventions use instruction strategies to educate mothers about the knowledge of child development and to impose unfamiliar parenting behaviours. Therefore, this study would be a unique attempt at using a non-instructive, culture-friendly, community-based, and preventive parenting intervention framework that would put emphasis on the sensitisation of the mothers' own activities and the needs of their children (Hundeide, 2010; Rye, 2001).

Previous slum-based research experiences of the researcher would also shed light on the significant contribution of this study. Years ago, I trialled a 7-week group-based parenting education program in a Dhaka slum with 10 mothers of children aged 3 to 5 years. That program was designed to educate mothers regarding the concept of child development through play-based activities. However, the program was not successful

due to a high dropout rate among the participants. Evidence showed that parents' attendance has a significant impact on evaluation findings for intervention programs (Attanasio et al., 2022; Fernald et al., 2017; Stoltz & Deković, 2016). Furthermore, I conducted a qualitative case study on three disadvantaged families of Bangladesh by gathering data to observe the interaction patterns of mother-child dyads as part of my Master of Philosophy (M.Phil) degree (Ferdowshi & Pervin, 2019, 2020). From this case study, the need for interventions in this field was made clear. In both experiences of disadvantaged contexts, I observed that the mothers were unaware of the importance of positive interactions. This PhD study seeks to extend the findings of the small qualitative study (M.Phil) by conducting a larger trial and evaluation of the intervention. This thesis would make an important contribution to the development of knowledge regarding mothers' parenting practices, feelings of parenting competence and sensitivity towards children in the context of Bangladesh. Overall, the perceptions of mothers about their children would be highlighted through the current thesis.

1.4 DEFINITIONS OF KEY CONCEPTS

Parenting

Parenting is a process of child rearing from infancy to adulthood that focuses on parents' or caregivers' practices of promoting scaffolding and supporting the optimum physical, emotional, social and intellectual development of a child (Davies, 2000). This study is focused on early childhood period when parents are the first individuals to train up their child who is beginning to shape his personality structure and adopt main habits (Sorakin et al., 2019). To state differently, parenting is a learned skill that an adult can acquired or improve on through education and experience (Ponzetti, 2016). Parenting behaviour can be positively related to children's development through the warmth and responsiveness of a parent's interactions with his or her child. Such interactions provide cognitive stimulation that also improve the child's developmental outcomes (Grindal et al., 2016). That means, an effective parenting includes understanding child's physical and psychological needs that may impact on overall developmental outcomes of the child and create a secure attachment with parents. An extensive research showed that good parenting could enhance children's well-being by including high level of maturity expectation, supervision, disciplinary efforts, sensitivity

to, and support for the child (Gutman et al., 2009). Overall, positive parenting behaviour is shown to be an important contributor to early learning and academic achievement of the children in both privileged and underprivileged family contexts (Kiernan & Mensah, 2011).

Mother-Child Dyad

A "dyad" is a relational bonding between two individuals (Bronfenbrenner, 1979). A mother-child dyad is formed whenever they pay attention to or participate in one another's activities. A strong emotional attachment between a mother and child increases the quality of future interactions between the two parties (Bowlby, 1969). Evidence indicated that early secure and stable relationship between mother and child promote child's future positive developmental outcomes, such as improved social skills, greater emotional regulation and school adjustment, and fewer behavioural problems (Reis et al., 2000). The mother-child dyad is very important for a child's development in two respects: the natural bonding of mother-child dyad itself constitutes a platform for development and the dyad can serve as a foundation for the micro-system within the family that further extends into larger interpersonal structures. More specifically, the quality of a child's first relationship with a mother has been found to affect the child's future functioning in social interactions with others. Through interactions with the mother, the child develops expectations of the other's behaviour and complementary beliefs about oneself. For example, a child who has experienced a history of contingent responsiveness from a mother would develop a model of that caregiver as available. That child would also develop a complementary sense of self that he or she is worthy of responsive care. On the other hand, a child who has experienced unresponsive care would develop a very different model of the relationship, expecting the mother to be unavailable. Such a child is expected to develop a sense of self as unworthy of responsive care. By considering the importance of mother-child dyads, this study focuses on mother-child interactions in the low-income families. Dyadic interaction among underprivileged families is characterised by maternal hostility, negative emotionality, coercion, and lower level of mother-child involvement (Negrão et al., 2014). To keep the dyadic interaction mutually regulated, the mother has to readjust her own behavioural repertoire and stimulus level to match the child's range of responsivity (Bronfenbrenner & Morris, 2006).

Parenting Intervention

The design of a parenting intervention focuses on improving or changing performance of parental roles through training, support or education (Smith et al., 2002). Parenting interventions mainly offer a structured set of activities that engage parents directly in ways that would influence one or more of the following parenting behaviours: nurturing (warmth, responsiveness, sensitivity), discipline, teaching, language, monitoring and management (The National Center for Parent, Family and Community Engagement, 2015). The main goal of parenting interventions is to develop positive child outcomes by enhancing parents' capacity to provide their young children with the sensitive and compassionate care that they need for learning and optimal development. Therefore, parenting intervention can be effective in improving parental sensitivity towards children (Bakermans-Kranenburg et al., 2003). Deprived high-risk circumstances, like poverty, often hamper parents' abilities to reach child's optimal development (Evans, 2004). A specific parenting intervention is implemented over a specific time period by following the standardised manual. It can be offered in a diverse setting, for example in early care and educational settings (centre and home-based), schools and other community-based settings. Studies on Bangladeshi undernourished children showed that parenting interventions significantly improved home stimulation, mothers' child caring knowledge, and the outcomes of children in terms of their behaviours and cognitive, language, and motor development (Hamadani et al., 2006; Nahar et al., 2012; Tofail et al., 2013). In this study, the specific parenting intervention uses a standard manual, session plans and other relevant resources to educate underprivileged mothers regarding positive interactions with their children so that the facilitator can offer an effective parenting intervention.

Positive Interaction

Interaction refers to an occasion when two or more individuals communicate with or react to each other (Cambridge Advanced Learner's Dictionary and Thesaurus, 2018). Interactions can be positive and negative in verbal and non-verbal forms. Positive interactions with families are one of the important influential aspects of healthy child development (Guralnick, 2006) and nurturing relationships (Ip et al., 2018). Here, positive interactions refer to the mother-child interactions in terms of mutual sensitivity or responsiveness. Two essential dimensions of contingent responsiveness are to respond to the child in a timely and predictable manner as well as to organise relevant and appropriate content of the parent-child interaction. More specifically, the timing of responsiveness requires maintaining the social exchanges at a proper pace and communicating to the child as per his or her desires and interests. Such interactions make a difference and exert an influence with respect to what happens next. The importance of sensitivity goes beyond the mother-child attachment; that means, mutual sensitivity relates to self-regulation, social skills, and cognitive competence (Negrão et al., 2014). This study focuses on parenting interventions based on the eight ICDP guidelines for positive mother-child interactions, for example, showing love and affection towards the child, adapting to the child, talking with the child, and giving praise and acknowledgment, focusing child's attention, giving meaning, elaborating a joint task, and learning to self-discipline (Rye, 2001).

Underprivileged Families

The term "underprivileged" refers to a lack of opportunities and advantages enjoyed by other members of a certain society (The American Heritage, 2000). An underprivileged family does not have enough money to receive the necessities, (i.e., clothing, shelter, and transportation) suitable for its class status. The poverty rate was 21.8 percent in accordance with the Sustainable Development Goals: Bangladesh Progress Report 2018. Despite of Bangladesh's advancement in poverty alleviation, an approximately one-fifth portion of the total population of the country lives below the poverty line (MoF, 2019). Underprivileged families exist in urban slums as well as rural areas. A slum is conceived as a dense cluster of unsystematic households serving families of lower socio-economic circumstance with a lack of security and poor governance (UNICEF Bangladesh, 2010). Children growing up in slums or

underprivileged families are received low parenting quality and maltreatment that hinder healthy development of children (Kiernan & Mensah, 2011; Li et al., 2011).

1.5 OUTLINE OF METHODOLOGY

The current research is a mixed method design with a combination of quantitative and qualitative components. A detailed description of the methodology is provided in Chapter 3. A brief outline of the methodology follows.

The purpose of this research is to adapt, implement and evaluate a parenting intervention, named International Child Development Program (ICDP), in the context of underprivileged mother-child dyads in Bangladesh. A standard procedure would be followed for adapting intervention module and measuring instruments. Next, the eight-week intervention would be implemented for both intervention and wait-listed control groups at two points in time. Wait-listed control groups would be waiting for 8-weeks during the intervention groups' programme implementation. Proper documentation, delivery of intervention and supervision would allow us to maintain program fidelity. The effectiveness of the program would be evaluated by comparing the pre and post-measurements on mothers' feelings of competence, parenting practices, conception of their children and mother-child interactions focusing on parenting sensitivity. This program of research would be conducted in one disadvantaged area of Dhaka. In total, there would be 10 groups in which five serve as intervention groups (n=50) and five as wait-listed control groups (n=50). Both groups participate in the parenting intervention sessions. The assessment would be conducted at two times: pre-test and post-test.

1.6 CONCLUSION

The study makes a significant and original contribution to knowledge and to positive parenting practices in the socio-cultural context of Bangladesh. It informs of interventions to enhance the quality of mother-child interactions and help educate mothers about the development of their young children. This chapter has laid the basis for the current study. It has provided the background and context to the current study and the proposed research objectives and presented the significance of the study. Next,

Chapter 2 begins by outlining the theoretical perspective informing of the specific parenting program of this research. Following this, it explores in depth some of the parenting programs that have been conducted successfully in the international as well as Bangladeshi context. Chapter 3 then explains the methodology in detail including the research design, participants, setting, tools for measuring outcomes and overall procedure for conducting this research. The analyses of mothers' experience about the intervention are explored in Chapter 4. Thenceforth, the detailed findings are presented in Chapter 5 where specifically states about the effectiveness of the intervention. Moreover, Chapter 6 has drawn individual case studies by highlighting the most benefitted and worsened individuals of this parenting program and their critical comparitive analyses. A more sophisticated and holistic discussion has provided for the findings of intervention experience and intervention effectiveness in Chapter 7 along with concluding remarks of this dissertation.

Chapter 2: Literature review

A growing international consensus regarding evidence-based practices of parenting highlights positive parent-child interaction as a foundation for secure parent-child attachment, positive parent-child relationships, healthy child development (Huber et al., 2015; Sanders, 2012; Væver et al., 2016) and improved parental self-efficacy (Abarashi, 2014; DesJardin, 2003; Doh et al., 2016; Hanna et al., 2002). Global findings also identify cognitive stimulation and caregiver's sensitivity and responsiveness to the child as important aspects of parenting that are consistently related to young children's developmental outcomes (Bradley & Corwyn, 2005; National Research Council & Institute of Medicine, 2000; Posada et al., 2002). Meta-analytical research identifies that securely attached children exhibit more social competence and fewer behavioural problems (Groh et al., 2017). In developing countries, more than 250 million children under five years of age fall short of their developmental potential (Black et al., 2017) due to risk factors such as stunting, iodine deficiency, iron deficiency-induced anaemia, and inadequate cognitive stimulation (Walker et al., 2007). Other potential risk factors identified in relation to children's development include maternal depression, exposure to violence, environmental contamination, and malaria (Walker et al., 2007). Therefore, parenting interventions are an essential strategy to address such risk factors for children's development in developing countries such as Bangladesh (Engle et al., 2007; Engle et al., 2011). Moreover, early childhood studies suggest that children's competencies are a product of the contexts in which they live. In particular, children spend their time in the family context where sensitive and positive parent-child interactions occur (Gregory & Rimm-Kaufman, 2008). Healthy parent-child interaction within the family is not only necessary for a child' health but also important for his or her future life (Sorakin et al., 2019). Thus, parent-child interaction is a dyadic process through which repeated interactions may help children to internalise a set of standards and expectations that are likely to be continued in their social interactions with significant others (Bowlby, 1988). Such dyadic processes of mother-child interactions can be improved through parenting interventions (Cowan et al., 1998).

This chapter presents a thematic literature review in accordance with the themes, theoretical concepts, and topics that are important to understand the topic (Sally, 2013). Here, the focus of this chapter is twofold: to present the theoretical framework and to critically review the empirical findings of parenting interventions. First, the bio-ecological model of human development briefly describes in section 2.1 as a relevant theoretical perspective. Next, section 2.2 discusses the components of effective parenting interventions (section 2.2.1) and reviews parenting programs previously conducted under various themes. For example, **"Parent-child attachment"** in section 2.2.2 covers the Video-feedback Intervention to promote Positive Parenting (VIPP)/VIPP-Sensitive Discipline, the Circle of Security (COS), and the Circle of Security-Parenting (COS-P). **"Parent-child positive interaction"** in section 2.2.3 reviews the Orion project and the International Child Development Program (ICDP). After that, **"Parenting skills and self-efficacy"** in section 2.2.4 describes the Triple P- Positive Parenting Program. Section 2.2.5 discusses the Nurse Family Partnership (NFP) Program and other parenting interventions that have been implemented across disadvantaged areas under the theme **"Parenting interventions in underprivileged contexts"**. Section 2.2.6 reviews the existing parenting programs in Bangladesh under the theme of **"Parenting interventions in the Bangladeshi context"**. Finally, section 2.3 concludes this chapter.

2.1 THEORETICAL FRAMEWORK

The current section helps to conceptualise the theoretical foundation of this research. The bio-ecological model is relevant as this research was conducted with disadvantaged mother-child dyads to enhance positive interactions. Thus, an understanding of context is important (Section 2.1.1). This study also gives attention to parenting interventions, especially implementing and evaluating the impacts of the International Child Development Program (ICDP). The theoretical underpinnings of the ICDP are grounded in attachment, mediation, and communication theories which are briefly discussed in Section 3.3.1.

2.1.1 Bio-Ecological Model of Human Development

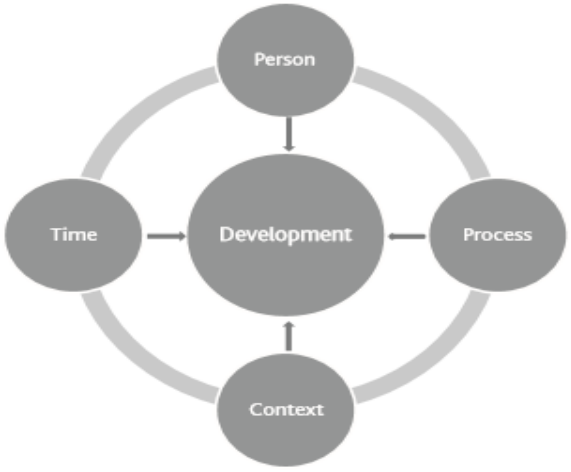
Urie Bronfenbrenner developed the "ecological theory of human development" and noted that:

> *"the ecology of human development involves the scientific study of the progressive, mutual accommodation between an active, growing human being and the changing properties of the immediate settings in which the developing person lives, as this process is affected by relations between these settings, and by the larger contexts in which the settings are embedded"* (Bronfenbrenner, 1979 p. 21).

Bronfenbrenner's notions about the ecological model of human development emphasised the role of the context surrounding the individual which was explicated through the Person-Process-Context-Time principles (Bronfenbrenner, 2005). Figure 2.1 demonstrates the interaction between these four principles of the ecological model.

Figure 2.1

Overview of Person, Process, Context, and Time Model



Note. Adapted from Houston (2017, p.55).

Here, the *person* indicates the multiplicity of both biological and genetic mechanisms that influence a child's behaviour and development. Bronfenbrenner (2005) divides the personal characteristics of a child into three: demand, resource, and force characteristics. *Demand characteristics* include the visible personal characteristics of the child, such as age, gender and race that significantly influence the reactions of caregivers and other persons to the child and their expectations of the child. By way of contrast, *resource characteristics* refer to biological, mental, emotional and cognitive dispositions (for example: past experiences, temperament or intelligence) within the child which have an impact on how he or she perceives and deals with different situations and develops an attachment to caregivers. Finally, *force characteristics* are exhibited in the child's inner drive, motivation and sense of self-efficacy that may vary from one child to another. Thus, force characteristics of a child are his dynamic personality traits that can either foster his interactions with parents, termed "developmentally generative", or interfere parent-child interactions, termed "developmentally disruptive" (Xia et al., 2020). All these characteristics are associated with each other while the child is interacting with parents and the world around them.

The second underpinning principle of the bio-ecological model is the *process* through which children's development take place. Proximal processes refer to the complex reciprocal interactions between an active, evolving biopsychological human organism and the persons, objects, and symbols in its immediate external environment (Tudge et al., 2009). Proximal processes can either foster child's competence or inhibit dysfunction (Xia et al., 2020). Daily mother-child interaction, their joint activities, and relationships are considered important factors of proximal processes that influence children's development (Merçon-Vargas et al., 2020). In line with this, the role of proximal processes, such as parenting, is the primary concern of the current study. As follows, such processes are pivotal in shaping the future development of the children, actualising children's potential abilities and enabling children to acquire the basic skills or knowledge necessary to adjust to the environment (Gallitto, 2012). It is understood that the patterns of mother-child interaction, whether positive or negative, influence children who live in underprivileged families.

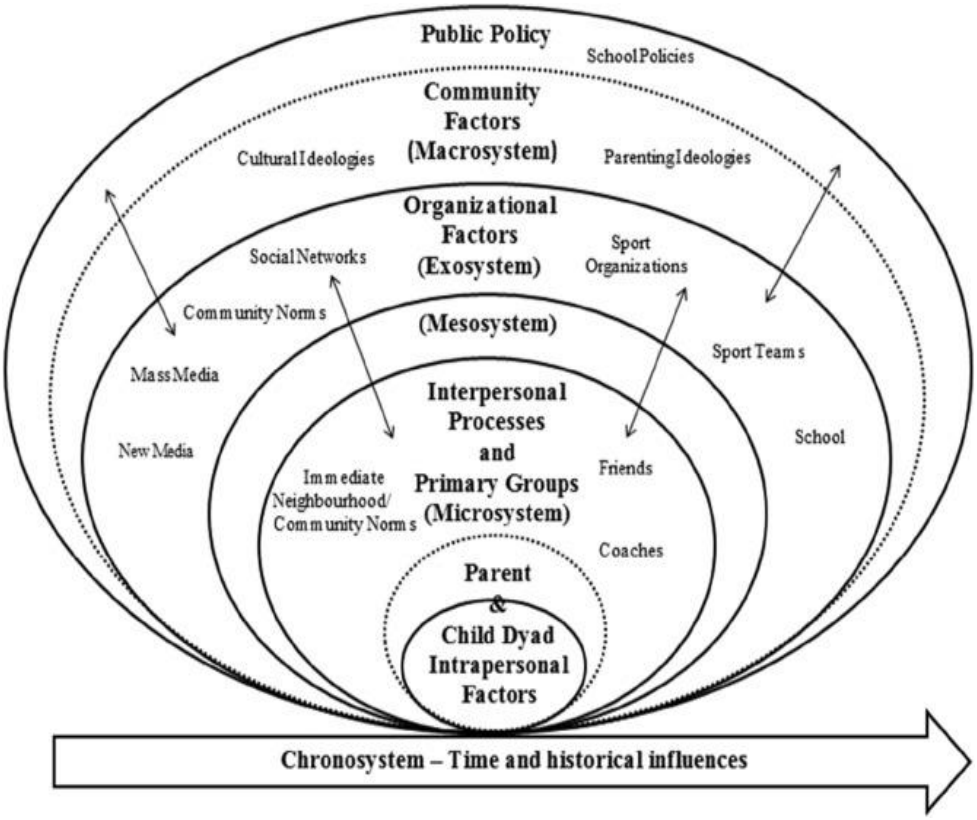
Context as a third principle refers to the four systems of interactions: Micro, Meso, Exo, and Macro-system. (Bronfenbrenner, 1979). This theoretical perspective relates to the current study as the mother-child dyad is the central focus for interactive communication. It also helps us to understand the specific cultural context in which mother-child dyads live. The microsystem refers to "a pattern of activities, roles, and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics" (Bronfenbrenner, 1979 p. 22). An example of a microsystem is the family within which the mother-child dyadic relation is a "proximal process", which is very significant for human development. This research is mainly concerned with the underprivileged family as a unit of the microsystem in which the mother-child dyad may take on a functional form of an "observational dyad", a "joint-activity dyad", and/or a "primary dyad". It is also essential to consider reciprocity and the balance of power in such mother-child dyadic relations (Bronfenbrenner, 1979). A set of interrelations between two or more settings or microsystems is called the mesosystem. The family as a microsystem is related to the child's other microsystems, for example, linkage with caregivers from a daycare centre which may influence the nature of the mother-child dyad. Exo-systems are the contexts where the child is not directly a part of this system but nevertheless is affected by its influence. For example, if a mother has been stressed at her workplace (exo-system for the child) and consequently behaves more irritably than usual with her child after coming back home, it has negative influence on the mother-child interactions (Houston, 2017; Swick & Williams, 2006). Finally, cultural beliefs, societal values, political trends, and overall community happenings may influence the mother-child dyad as part of the macro system. Without an umbrella of services and supports for families, children and their parents are less likely to have positive outcomes (Swick & Williams, 2006).

The fourth background principle is *time.* Bronfenbrenner refers to this as the *chrono*-system that involves temporal challenges throughout the life course and historical changes within the culture or society (Houston, 2017). What is happening during the time of mother-child interactions or activities may affect the optimal development of the child. As children grow older, they react differently to the mother, other caregivers and various environmental stimuli and consequently, may be able to determine how that change will influence them (Ben-David & Nel, 2013). In 1998, this theory was renamed as "bio-ecological model of human development" (Bronfenbrenner,

1979; Bronfenbrenner & Morris, 2006). The full bio-ecological model is presented in Figure 2.2.

Figure 2.2

Bronfenbrenner's Ecological Model of Human Development



In summary, Bronfenbrenner's bio-ecological model offers an understanding of the complexity of the mother-child interactions that affect the dynamics of parenting and consequently children's optimal development. The potential of early parenting intervention has been conceptualised at all levels of Bronfenbrenner's theory. That means, this theory can influence the healthy development of the child – the microsystem, the relationship between the people responsible for childcaring – the mesosystem, the parenting is influenced by social networks – the exosystem, the biological embedding of social adversity through the home learning environment – the macrosystem, and how disadvantaged context is transmitted from generation to generation – the chronosystem (Nolan, 2020). Moreover, this theory is well-suited to inform of research conducted in an underprivileged context. As this study is focusing on

families, an underprivileged community and a specific cultural setting, the bio-ecological model is an ideal framework for identifying practices of mother-child positive interactions. This model also emphasises the roles and responsibilities of the government to create the optimum atmospheres for positive parenting. Therefore, national policies may reduce the risk factors that lead to poor parenting practices and that nourish the relentless cycle of poverty and families distress (Moeller et al., 2013). In addition, this model can then be used to design appropriate parenting interventions by exploring specific cultural practices, knowledge, and beliefs of child care (Buser et al., 2020).

2.2 PARENTING INTERVENTIONS

Parenting a young child can be stimulating, rewarding, difficult, and quite challenging responsibilities. The diverse roles of parents are acknowledged under the field of early intervention. Previously, intervention approaches with children and families were instructive and oriented towards professionals. Early interventionists provided necessary tools to the parents for working with their children. Currently, a change has occurred in scholarly literature with respect to professional practices and attitudes, and an understanding of the role of the caregivers in children's learning and development. Simply, the new approach has shifted towards participation, collaboration, and the empowerment of caregivers. Enhancing the competence and confidence of caregivers is considered a major role of today's interventionists (DesJardin, 2003; Rye, 2001). Consequently, children's developmental opportunities have the potential to be enhanced through interventions with parents.

A large body of research has shown that parenting programs have a range of positive outcomes for children and families including improved child behaviour, increased maternal self-efficacy, relationship adjustment, improved mother-child interaction and knowledge, and decreased maternal depression and stress (UNICEF, 2009). Mothers with higher levels of parenting efficacy showed more positive, responsive, and warm parenting and consequently better understanding of children's behaviour (DesJardin, 2003). There is also evidence that parenting efficacy has been improved among low-income mothers of young children as an impact of parenting intervention (Gross et al., 2009 in Doh et al., 2016). Decreased maternal stress and anxiety due to parenting interventions can also be attributed to improved relationships

with families and reflect more stable emotional states (Song et al., 2014). The benefits of parenting programs have been found in children's communicative actions which support cognitive development in early childhood (Landry et al., 2001) as well as having positive impacts on children's language and literacy outcomes (Landry et al., 2012). Findings from Calkins and Hill's (2007) study revealed that sensitive mothers were more likely to demonstrate their knowledge of children's individual needs and provide scaffolding in children's difficult social and academic tasks. Stated differently, children with negative parent-child relationships in early childhood often develop difficulties in later development, such as low academic achievement, negative social relationships, and delinquency (Breitenstein et al., 2012). Strikingly, a longitudinal study with low-income predominantly White mothers and their infants in Minneapolis found that quality mother-child interaction at the age of 42 months was considered a significant predictor of education attainment roughly 20 years later (Sroufe et al., 2005). In addition to these, family socioeconomic status (SES) and child health are found to be strongly linked (Lee & Jackson, 2017). Robust literature documents that less optimal child development, including illness, low birth weight, temperament, and behavioural problems, is related to insecure parental relationship, poor parental health, and less participation of both parents in the workforce (Garbarski, 2014; Powers, 2001). Such circumstances emphasise *"child health as a possible mechanism in the intergenerational transmission of poverty"* (Lee & Jackson, 2017, p. 1865).

Overall, many parenting programs seek to empower caregivers in ways that may improve their care of and interaction with young children and enrich the immediate environment within which children live. For example, the ICDP is a resource-based communication and mediation approach which sensitises parents to practice positive existing parenting skills and improve interactions with their children by using eight guided themes, that is demonstrate positive feelings, follow their child's lead, talk with their child, give praise and acknowledgment, help their child focus his/her attention, give meaning to the child's experiences, elaborate and explain a shared event, and help the child learn self-discipline. The underlying mechanism of improving caregiver-child positive interactions is the ICDP's emphasis on "human empathy", the caregiver's positive experience of the child, strengthening the caregiver's self-confidence, sensitive emotional-expressive dialogue between the caregiver and the child, and reactivating

positive cultural child caring practices and values (Ferdowshi, 2014; Hundeide, 2010; Rye, 2001, 2005; Suleymanov, 2015).

Research has also demonstrated the effectiveness of parenting programs in diverse cultural settings, for example, the ICDP is an interactive psychosocial program directed towards parents and other caregivers, used in about 30 countries (Skar et al., 2014b). In addition, the triple P parenting program has been evaluated in 20 countries and suggests reductions in disruptive child behaviour, dysfunctional parenting and co-parenting conflicts, and improved parental mental health 6–12 months after program implementation (Dean et al., 2003). In this chapter, an overview is provided of various parenting interventions focusing on enhancing parent-child attachment, promoting positive parent-child interactions, improving parenting skills and self-efficacy, interventions in underprivileged contexts and Bangladesh studies. Some of these programs are home-based, such as the VIPP, the VIPP/SD (Juffer, 1993; Juffer et al., 2008, 2009, 2014), the Orion projects (Weiner et al., 1994), and the Bangladesh psychosocial stimulation program (Tofail et al, 2013). Some programs are group-oriented, such as the COS (Hoffman et al., 2006; Huber et al., 2015; Jonsdottir & Coyne, 2016; Ferdoulys & Coyne, 2016), the COS-P (Horton, 2013; Væver et al., 2016), the ICDP (Sherr et al., 2014; Skar et al., 2014b), Triple P (Sanders et al., 2008; Sumargi et al., 2015) and some of Bangladesh's responsive stimulation and feeding programs (Aboud, 2007; Aboud et al., 2008; Opel et al., 2008). These aforementioned programs are also conducted in a combination of group and home-based sessions to achieve better results, such as the ICDP (Skar, Sherr, Clucas, & von Tetzchner, 2014a), Triple P (Turner et al., 2007), and some studies from Bangladesh related to psychosocial stimulation (Hamadani et al., 2006; Nahar et al., 2009) and health, nutrition, communication, and play (Aboud et al., 2013). Some are short-term only (VIPP/VIPP-SD), others much longer-term (COS). The VIPP and VIPP-SD programs include a "booster" dose during the intervention whereas the Incredible Years parenting training program (Posthumus et al., 2012) conducts "booster" sessions after the intervention to evaluate the sustained effects.

The main concern of the current study is the enhancement of parenting skills in an underprivileged context. In particular, studies show that positive mother-child interaction is considered an essential requirement for reducing the risk of maltreatment

of young children in underprivileged families (Lachman et al., 2016, 2017). Parenting interventions are required where new parents are educated in parenting skills, how to cope with stressors, and how to promote positive interactions between the parent and the child (Mihelic et al., 2017). This section first describes the essential components of intervention science (section 2.2.1), then outlines various well-known parenting interventions under conceptual themes and finally critically reviews those parenting programs (section 2.2.2 to section 2.2.6).

2.2.1 *Essential Characteristics of Effective Interventions*

As the notion of evidence-based practice becomes more important, there is an increasing number of studies conducting evaluations on the effects of parenting programs. The main focus of such evaluations is on the quality of the parenting programs and the adequacy of outcomes. When designing and implementing a parenting intervention there appear to be some elements that are essential for a successful intervention. These essential elements (Powell, 2006) include- (i) the information that is shared with families (content), (ii) which members of a family are encouraged to participate (participant), (iii) how the intervention is delivered (group or home visit or both), (iv) the intensity of the programs, in terms of: the frequency of contact with a family (weekly /biweekly); the length of intervention (8 sessions or 20 sessions); the timing or starting point of intervention in terms of child's age; and the extent of participants' engagement in an intervention, (v) staffing or who is work directly with parents, (vi) targeting and recruiting families, and (vii) the host agency or community support for the intervention. Along with these seven components, Powell (2006) represented five basic intervention designs; such as-

1. *Parent as adjunct to child program* provides occasional opportunities for parents to be involved;
2. *Parent as supplementary to child program* requires or expects regular involvement in program provision for parents;
3. *Parent as primary participant with child-focused content*;
4. *Parent as primary participant with a broader set of family functions*, and
5. *Parents and children as primary participants*.

Therefore, parenting interventions are described by child or family characteristics. Some examples of parenting program parameters are i) families living in poverty or high-risk

contexts, ii) normative adult transitions such as, becoming parents or death of a parent, iii) child's sensitive period of development, iv) problematic or dysfunctional parenting behaviour such as, child abuse or substance use, v) parent characteristics such as, young age, and vi) child developmental or behaviour issues such as, disabilities or health conditions (Powell, 2019).

After considering the core elements of the intervention, it is worthwhile to mention the specific steps involved in developing an appropriate parenting intervention design. The following steps are developing a vision, assessing the target individuals' needs, identifying the conceptual framework, determining objectives and specific learning outcomes, planning assessment of effectiveness, and designing learning activities (Jacobson, 2016). One important criterion for making a parenting intervention efficacious is conducting a "need assessment" or feasibility study to understand whether the specific parenting intervention meets the needs of the target audiences and the issues they face. Such needs assessments could be conducted through a variety of ways, such as observation, research of issues and demographic characteristics, field knowledge, informed experts, surveys, focus group discussions, and so on. The researcher should focus on the process of parenting program implementation within the community setting. For accurate implementation, training is essential that could be provided through workshops and supervisions.

Overall, fidelity is a crucial component for effective implementation that includes the program manual, training, monitoring of intervention delivery, and monitoring of intervention receipt. However, it is difficult to balance fidelity by maintaining the provider's adherence, competence, and component differentiation (Baumann et al., 2016). Based on previous reviews (Bakermans-Kranenburg et al., 2003; Pinquart & Teubert, 2010), the following moderators have been identified for making an intervention effective; these are the onset of the intervention, length and duration of the intervention, place of delivery and modalities, qualifications of the staff, risk status of the participants, and quality of the study. Therefore, effective interventions emphasise the importance of diverse cultural understanding to design specific needs-oriented services. Sometimes cultural adaptation and fidelity are interpreted as a dispute between two divergent perspectives on intervention implementation. The first perspective emphasises delivering the program as per the

original manual with less modifications whereas the second perspective highlights accommodating any particular needs of the participants and the local community. A growing attention is given to how to determine an optimal mix of fidelity and adaptation. Research also indicated that fidelity and adaptation might often co-occur and contributed independently to the intervention outcomes. The researcher should implement with fidelity by identifying and evaluating core components of the intervention and should identify the components that are amenable to adaptation (Ferrer-Wreder et al., 2012). The following Section discusses interventions focusing on enhancing parent-child attachment.

2.2.2 *Interventions that focus on enhancing Parent-Child Attachment*

This Section presents two well-known evidence-based parenting interventions. One is the "Video-Feedback Intervention to Promote Positive Parenting" (VIPP; Juffer, 1993; Juffer et al., 2008, 2009) and its revised version, the VIPP-Sensitive Discipline (Mesman et al., 2008). The other is the "Circle of Security" (COS; Hoffman et al., 2006) and its revised version, the COS-Parenting (COS-P; Cooper et al., 2009). The VIPP and the VIPP-SD are short-term parenting interventions with four to six home sessions including booster sessions whereas the COS is a comparatively long-term program with 20-week group sessions. A noticeable change has been made in the COS-P where shortened 8-week sessions are conducted on both a group and individual basis. These two interventions are briefly reviewed hereunder.

Video-feedback Intervention to promote Positive Parenting (VIPP) and VIPP-Sensitive Discipline (VIPP-SD)

This short-term, home-based intervention was developed based on the insights from attachment theory by aiming at promoting sensitive parenting and positive parent-child interactions (Juffer, 1993; Juffer et al., 2008, 2009). The objective of the VIPP program is to promote parental sensitivity through attachment-based video fragments. The program consists of four themes that are elaborated successively during four to six home sessions. The VIPP themes are: (1) Exploration versus attachment behaviour: showing the difference between the child's contact-seeking behaviour and play, and explaining the differential responses needed from the parent, (2) Speaking for the child: promoting the accurate perception of

children's (subtle) signals by verbalising their facial expressions and non-verbal cues shown on the videotape, (3) Sensitivity chain: explaining the relevance of prompt and adequate responding to the child's signals ("chain": child signal–parental response–reaction of the child), and (4) Sharing emotions: showing and encouraging parents' affective attunement to the positive and negative emotions of their child (Juffer et al., 2014, p. 91). The first and second home sessions orient to teaching parents how to perceive and interpret their child's signals accurately; the third and fourth home sessions involve reinforcing and promoting parents' efforts to respond to their child's signals in prompt and adequate ways; and in additional booster visits, fifth and sixth sessions combine and repeated all sensitivity themes of the first four intervention sessions.

Another extension of the VIPP was developed and tested with an additional component, Sensitive Discipline, which aimed at enhancing adequate discipline (VIPP-SD). This is characterised as an interaction-oriented intervention using video feedback to promote parental sensitivity as well as adequate and sensitive discipline strategies (Mesman et al., 2008). Along with sensitivity themes, the VIPP-SD uses additional themes such as "Inductive discipline and distraction" in session 1, "Positive reinforcement" in session 2, "Sensitive time-out" and "Empathy for the child" in the third and fourth sessions, respectively. The fifth and sixth sessions are used as "booster sessions" as in the VIPP program.

The VIPP/VIPP-SD have been tested in various countries with at-risk parents or children. In all studies, the VIPP/VIPP-SD or adaptations of the program have proved to be effective in enhancing sensitive parenting. In a randomised trial with Dutch mothers from low-socio-economic status, the VIPP program was found to significantly increase maternal sensitivity in the intervention group (Velderman et al., 2006). In another study of Lithuanian mothers, findings revealed that the intervention mothers significantly improved their sensitive responsiveness through participation in the VIPP compared to a control group of insensitive mothers in a randomised controlled trial (Kalinauskiene et al., 2009). Furthermore, a randomised controlled trial in home-based child care showed that the family-based VIPP with six intervention sessions could be successfully implemented in group setting with some minor modifications. Findings identified that global child care quality improved in

the intervention group in which caregivers reported more positive attitudes to sensitive parenting than caregivers in the control group (Groeneveld et al., 2011).

For assessing the effectiveness of the VIPP and the VIPP-SD, one of the most useful tools is a meta-analysis in which data from multiple studies are synthesized and quantified and solid conclusions can be drawn. By examining 70 published intervention studies with 88 interventions (a series of meta-analyses) directed at either sensitivity or attachment or both, Juffer et al. (2014, 2017) examined the effectiveness of the interventions in terms of the combined effect size (*d*, the standardised difference between the means of the intervention and control groups), the background of the sample (high-risk or low-risk samples), the focus area of interventions, and the duration of the interventions. Including 12 randomised controlled trials (RCTs) with 1,116 parents or caregivers in a meta-analysis of VIPP/VIPP-SD studies (all RCTs), an overall effect size of Cohen's $d = 0.47$ was found, indicating that the VIPP/VIPP-SD program substantially affected sensitive parenting in a positive way (Juffer et al., 2014, 2017). In line with these findings, VIPP using video feedback in which video recordings of the parent-child interaction were shown to the parent, accompanied by comments and feedback was the most effective method.

In addition, meta-analyses (Bakermans-Kranenburg et al., 2003) also found that interventions with fewer than five sessions were as effective as five to sixteen session interventions when supported by an attachment oriented, short-term and interaction-focused VIPP program. It can be assumed from VIPP evidence that an 8-week ICDP intervention would be effective as it is focused only on mother-child positive interaction as a consequence of positive maternal sensitivity, parenting practices and improved mothers' sense of competence. The VIPP/VIPP-SD is implemented in the home setting due to filming mother-child interactions in the natural settings. It is also easier for mothers to receive feedback in a familiar and comfortable environment. In addition, parents with children of preschool age may encounter difficulties in traveling back and forth to the intervention centre and they may be more likely to cancel visits for these reasons. In case of offering interventions at home, there is a high probability that parents might complete the entire program. However, home-based interventions are time consuming and costly that direct this proposed study towards implementing group based ICDP by

arranging special arrangements such as, using incentives for participants' regular attendance.

To date, in research and practice dyadic (mother-child) interactions have been targeted, although the first studies on VIPP-SD with fathers as well as parent couples (triadic interactions between child and both parents) are in progress. As a new version of VIPP-SD, the researchers have introduced this parenting intervention in foster care that increases sensitive parenting and the use of sensitive discipline strategies of foster parents to prevent child's emotional and behavioural problems (Schoemaker, et al., 2018). To examine the effectiveness of VIPP-SD in foster care, a RCT with 60 foster families in the Netherlands did not find evidence for effectiveness, possibly due to participants' selection bias effect (Schoemaker, et al., 2020).

Circle of Security (COS)

Another attachment-based parenting intervention is the Circle of Security (COS) which is a 20-week long group intervention program designed to improve attachment security between parents and children (Hoffman et al., 2006). The COS intervention seeks to achieve these objectives by (a) helping parents understand and interact with their children's emotional and behavioural needs; (b) supporting parents in recognising their mental representations of attachment and shifting maladaptive mental representations; and (c) developing the parent's capacity for reflective functioning (Huber et al., 2015). The COS intervention is convincingly theoretically grounded and shows potential for improving caregiver–child attachment in high-risk families (Cassidy et al., 2011; Hoffman et al., 2006), though empirical support for the effectiveness of the intervention is limited. The COS was first evaluated on 65 pre-schooler-caregiver dyads, recruited from the Head Start and the Early Head Start programs in the United States of America, by using a group treatment modality to provide parent education and psychotherapy based on the dynamics of secure and insecure attachment patterns. Study findings supported that there was a significant decrease of disorganised and insecure attachment in high-risk toddlers and pre-schoolers as an impact of the COS intervention (Hoffman et al., 2006). Further research is needed to replicate and extend these findings in terms of whether this intervention would also be effective for older children and in samples

outside of North America. Recently, another effectiveness study was conducted on the COS intervention in Australia with 83 clinically referred parent-child dyads. Children were aged 13 to 88 months at the time of pre-assessment using pre/post sequential cohort design. Study results confirmed that the COS intervention improved caregiver reflective functioning, caregiving representations, and the level of child attachment security including a decline in the level of attachment disorganisation for those with high baseline levels. Overall, this study revealed that the COS intervention results in a significant improvement in caregiver-children relationships (Huber et al., 2015).

More recently, a preliminary COS intervention conducted in Australia with two mothers of children with autism spectrum disorder under the age of five years demonstrated positive outcomes in improvements in attachment security between mother and child dyads and parenting sense of competence (Fardoulys & Coyne, 2016). The main strengths of this study were that it used baseline and follow-up assessments to measure changes in attachment, and a blind-coding process by two coders which provided categorical scores for reliable qualitative information about the quality of the dyads' attachments. At the same time, another exploratory study was conducted with three mother-child dyads in Australia concerning the group processes within the COS program. The qualitative findings indicate that parents are learning from the COS program by observing the other parents who review the video tapes of the program (Jonsdottir & Coyne, 2016). The strength of this study is that it employs a case study approach through which an in-depth exploration is possible while understanding the role of caregivers' self-reflective learning as an underlying mechanism of group processing. Both preliminary studies (Fardoulys & Coyne, 2016; Jonsdottir & Coyne, 2016) require replicating with a larger, more diverse sample so that the findings can be generalised.

The advantages of the 20-week COS group intervention are that it follows a standardised protocol, is time-limited, centre-based, and is delivered in a systematic video-based group model (while still using an individualised approach). Nevertheless, it is important to acknowledge that resources to support this intensive 20-week COS treatment approach may not be readily available for all cultural contexts as it requires a standardised adaptation of video clips and most importantly

requires trained facilitators. This adaptation and training procedure are very expensive and time-consuming. To overcome such limitations, the Circle of Security-Parenting (COS-P) was introduced as a shorter, and less intensive intervention with an eight-session protocol (Huber et al., 2015).

The Circle of Security-Parenting (COS-P) consists of a minimum of eight weekly sessions of 1½ to 2 hours duration without the initial individual video assessment of attachment, which is part of the longer COS program. The manual is structured in eight chapters each focusing on a specific theme, such as "The Circle of Security", "Exploration of the child's needs in the circle", "Being with your child in the circle", "Exploration of own challenges in meeting child's needs", "Disruption and repair of the relationship" (Horton, 2013; Væver et al., 2016). An action research study on the impact of the COS-P program with 15 mothers in a residential substance abuse treatment program revealed improvements on mothers' emotional regulation, hostile attributions, and harsh discipline practices associated with child maltreatment. Overall, the participants positively evaluated the program and asked for more time with the curriculum (Horton, 2013). Another evaluation study of the Circle of Security-Parenting program for women with perinatal mood disorders found that the mothers experienced less helplessness about their parenting ability after participating in the intervention program. Moreover, 96% of them reported a reduction in their stress levels while all participants reported viewing their child's behaviour more positively (Foster, n.d.). Recently, a parallel randomised control trial with two intervention groups was conducted with 314 families in Denmark to examine the efficacy of COS-P compared to Care as Usual (CAU). Findings indicated that the COS-P educational program enhanced parental sensitivity and attachment compared to CAU in a large community sample. More specifically, this evaluative study reduced maternal depression and that helped to improve maternal ability to mentalise, family functioning, and child outcomes in cognition, language, and socio-emotional development. In addition, disadvantaged families improved more from COS-P intervention. The main forte of COS-P is its

shorter version eight module program that is user-friendly, cost-effective, and face valid. It could be used for group of parents as well as for individual parents (Cassidy et al., 2017).

Very recently, several studies have been conducted in different states of Australia. Two qualitative studies conducted to understand the practitioners' perceptions about the COS-P training and implementation. The first study conducted with 8 clinicians from Canberra and findings suggested its strengths, weaknesses, challenges, and possible improvements (Reay et al., 2019). The second study took 12 practitioners who trained up in Brisbane and their common perceptions regarding this program were its generalisability to a wide variety of contexts, useful framework for understanding of clients, and barriers of implementation (Cooper & Coyne, 2020). Both studies mentioned about the COS-P program's generalisability to diverse groups of participants. In continuation of such findings, the researchers conducted this COS-P with 54 foster carers of 6-12 year-old children in Brisbane. The observational findings of foster carer reported decreased levels of emotional and behavioural difficulties for their foster children, improved parent-child interactions and reduced parental distress (Krishnamoorthy et al., 2020).

To sum up, the COS and the COS-P both focus on the parent in group settings by increasing their ability to read the attachment-related cues of their child and to respond sensitively. The main strengths of these programs are group sessions, using video clips, and focusing on attachment in the interventions. The current research is also group-based parenting intervention with attachment component which expresses emotional-dialogues of the intervention (ICDP), such as "demonstrate positive feelings to the child". The practical difficulties of the COS intervention are its cultural adaptation in terms of translation of all video data into Bangla which is very expensive and time consuming. The following section reviews interventions focused on promoting positive parent-child interactions.

2.2.3 *Interventions that Focus on Promoting Positive Parent-Child Interactions*

This section highlights two interventions that promote positive parent-child interactions. One is a video-oriented home intervention (the Orion Project) and the other is a group-based parenting guidance program (the ICDP). Only one evaluation study

was found for the Orion program whereas the ICDP has various short-term studies along with some larger-scale studies including follow-ups, randomised controlled trials, and replication by independent researchers. Both programs are reviewed hereunder.

The Orion Project

The Orion Project is an intensive, short-term (for 3 to up to 6 months, once a week), video-based home intervention program for strengthening positive interactions between pre-schoolers and their parents. In the 1970s, this program was developed in the Netherlands by Harry Bieman and Maria Aarts. The Orion was found to be extremely effective in work with unmarried, drug-abusive, seriously malfunctioning mothers with young children at risk. Its approach is focused on establishing positive communication in everyday home situations using immediate video feedback. One of the advantages of this approach is that it can be easily incorporated into family intervention practice. An evaluation study in Israel (Weiner et al., 1994), reported that both verbal and non-verbal positive interactions were reinforced and modelled whereas negative interactions were found to be decreased. Positive interactions include sharing attention among family members by taking turns, describing to the child what is taking place, providing guidance and approval for children's initiatives, and enjoying pleasant moments together. In contrast, negative parental interactions, such as rejecting or ignoring children's attempts at closeness, shouting at children or hitting them, are not discussed in the intervention, but were found to have been reduced when positive interactions increased. The improvements observed in virtually all aspects of child well-being and of positive communication within the Orion families were both impressive and significant. The children in the Orion families were far less likely to appear unhappy, maltreated or neglected when the Orion intervention was completed. This study demonstrated that the Orion intervention with its video feedback of interaction helped promoting parent-child positive interaction in situations where such interaction was minimal (Weiner et al., 1994).

Consistent with the VIPP, the COS, and the COS-P, this Orion project has also demonstrated its effectiveness in terms of program duration, focus of the intervention, and immediate video feedback as the methodological approach. The main strength of this intervention is that it focuses on the humanistic perspective considering the child's innate intersubjectivity, affect attunement and attachment.

The International Child Development Program (ICDP)

The ICDP is an eight-week non-instructive group program, designed to build parent confidence, enhance parents' empathy, positive perceptions of the child, and positive interactions with the child by increasing parental understanding of child development (Hundeide, 2010; Rye, 2001). As this study implemented the ICDP with underprivileged mothers, the details of the ICDP and its theoretical background are described in Section 3.3. In this Section, eight key studies regarding the effectiveness of the implementation of the ICDP in various contexts are critically reviewed and discussed.

1. A randomised controlled trial was conducted with Bosnian-displaced mother-child dyads (N=87) for evaluating a psychosocial intervention program (Dybdahl, 2001). The participants were assigned into intervention group (n=42; receiving the ICDP and medical help) and the control group (n=45; receiving medical help only). The intervention period was for 5 months. The post-assessment was conducted 6 months after the pre-assessment.

Measuring Instruments and Outcomes. The study consisted of interviewing with the mothers, interviewing with the children, and evaluating the interviewers' perception and their observations of the child and the mother-child interaction along with qualitative open-ended interviews and observations. However, qualitative data were not discussed here. The measuring instruments and outcomes were critically reviewed below:

Adjusted version of the War Trauma Questionnaire, developed by Macksoud in 1992, consisted of 19 items that used to identify the exposure to direct warfare, separations, losses, deprivation, and other traumas. It was found from the baseline assessment that the majority of the children and their mothers had experienced severe war activities, such as had to flee from home (100%), thoughts of death (92%), separated from close family (75%), family members missing (66%), and so on. The mean number of traumatic event experienced was 9.5 (range= 3-16, SD=2.4;

N= 76). However, the findings did not show any differences between the boys and girls or between the intervention and control group in terms of participants' traumatic experiences.

The mothers were asked 3 questions about "perceived social support" where there was a little mean difference found from pre to post-test findings between the intervention (pre: M= 4.4, SD=1.7 and post: M=5.0, SD=1.4) and control mothers (pre: M= 5.1, SD=1.6 and post: M=4.9, SD=1.6). By using the Impact of Event Scale-revised version developed by Weiss in 1996, the mothers' post-traumatic reactions assessed and intervention mothers (pre: M=71.2, SD=26.8 and post: M=56.1, SD=20.4) showed a noticeable difference from pre to post-test in compared to control mothers (pre: M=62.1, SD=22.9 and post: M=59.2, SD=17.4). In line with this, the intervention group mothers rated themselves as happier and rated their children with more positive characteristics at post-test than at pre-test on two 7-point semantic differential scales of "well-being" and "descriptions of their children" respectively. In addition, the mothers were also asked to rate their children in terms of their psychological and concentration problems. Results showed that the mothers in the intervention group tended to report more reduction in anxiety, sadness, sleep problems, nightmares, and attention issues than the control group on children's psychological and concentration problems checklists, respectively. However, the differences of both psychological problems and concentration checklist failed to reach statistical significance.

Like mothers, the child's cognitive performance was measured through Raven's Coloured Progressive Matrices that was developed in 1947 consisting of 35 items as it was easy to administer, applicable for non-verbal, and suitable for young children. The intervention group mean score on the CPM was 17.7 (SD=3.2) and the control mean score was 15.5 (SD=5.0). Findings showed that the intervention children tended to improve their scores more than the control group, $t(62) = 1.46$, $p = .07$. In addition, children were directly interviewed by using Birleson's Depression Inventory that was developed in 1981 and the well-being face scale. The children were not in the expected direction that is, showed statistical non-significance. Thus, the intervention group children reported less improvement than the control group. Besides these, children were examined in terms of their physical conditions, such as

anamnesis, physical examination, blood test, and height and weight. Though there was no difference between the groups in terms of stature change, the intervention children gained an average of 600 g more than the control children.

Moreover, this study examined the interviewers' perception about each child based on their child's observation during interview. According to the interviewers, the findings revealed that the intervention group children's psychological and concentration problem scores were reduced more than in the control group.

Overall, results indicated that although all participants were exposed to severe trauma, their manifestations of distress varied considerably. Findings revealed improved maternal mental health, nutritional child growth, and several measures of children's psychosocial functioning and mental health for the intervention group in comparison to the control group. More specifically, the positive effects of the intervention program were seen in the children's problems reduction that was judged by the interviewers, on children's weight gain, mothers' trauma symptoms reduction, and mothers' life satisfaction increased. Similarly, greater improvements were found in children's cognitive performance, mothers' description of their children, and reduction in children's problems. The improved changed could be due to randomisation of both groups and the interviewers being blind to the group conditions – such strengths of the reviewed study help to design the current study. Therefore, these findings could be of significance for the intervention; however, how the intervention worked was unknown and was not clearly explained by the researcher.

2. An evaluation study was conducted in Norway to examine the impact of ICDP courses on general community caregivers by Sherr et al., (2014). The study used quasi-experimental design with a natural intervention group (n=141) and a comparison group (n=79), both completed questionnaires before and after the intervention group's ICDP course. All ICDP facilitators were contacted and recorded forthcoming groups for potential inclusion. For the intervention group, a total of 269 non-clinical caregivers of children aged 4 years on average completed the pre-assessment questionnaires where 141 (52.4%) completed post-assessment

questionnaires. Similarly, 157 comparison caregivers of children aged 3.3 years on average to the control group for passage of time was recruited from areas where ICDP was not implemented, of whom 79 (50.3%) returned the post-test questionnaires. The data were collected from October 2008 to March 2010.

Measuring Instruments and Outcomes. Measures include parenting behaviour (activities with the child, positive discipline, household commotion, happiness with partner, parenting strategy, engagement with the child and child management), depression, social support, and the Strengths and Difficulties Questionnaire for assessing child's outcome. Among these measures, the expected outcomes were found by using the Parent-Child Activity Scale developed by Bigner in 1977. Study found a significant interaction between Group (ICDP/Comparison) and Time (Pre/Post) for amount of activity with the child, indicating no change in amount of activity for the ICDP group (M=101.80 and M=101.92), and a decrease activity in the comparison group (M=101.95 and M=98.81). Findings further showed a significant interaction for using "parenting strategy scale" that developed based on ICDP's meaning/comprehension components, indicating ICDP attendees improved their parenting strategies from pre to post-test (M=22.67 and M=23.52) while the comparison group did not change or had slightly lower scores (M=23.54 and M=23.30). In line with the parenting strategy scale, "child management" scale was developed with a focus on the emotional and regulative components of ICDP intervention. Results indicated ICDP caregivers reported more positive attitudes and better child management after the ICDP course (M=1.91 and 1.79) while there was no change in the comparison group (M=1.82 and 1.83).

Findings also showed a significant three-way interaction between Group, Education (higher/lower) and Time of measurement for the Household Commotion Scale. ICDP caregivers with the higher education showed a larger change in scores than the other groups of caregivers. Another three-way interaction between the Hospital Anxiety and Depression Scale (low/high) indicated that the ICDP course may have a greater effect on caregivers with higher depression scores. In the case of measuring child's outcomes, findings reflected a significant interaction in the Strengths and Difficulties Questionnaire's impact score, a decrease in parent-reported overall distress and social impairment resulting from child difficulties in the ICDP group (M=0.51 and 0.24) but not in the comparison group (M=0.07 and 0.11).

Overall, the results showed benefits to the caregivers for attending ICDP. Though one of the main limitations was its recruitment process in which ICDP caregivers were recruited through self-initiation and comparison caregivers recruited from health centres and kindergartens in where ICDP courses were not available. That's why, there were found some significant differences between ICDP and comparison group at pre-test and hence they did not necessarily represent the same population. Using only self-reported measures, participants' loss to follow up assessment, and non-randomised design may impact the ICDP's outcome. Such limitations show the direction of developing the research plan for the present study.

3. Skar et al., (2014a) conducted a quasi-experimental study for exploring the long-term effect of ICDP with caregivers in Mozambique. This study compared caregivers who had previously attended an ICDP course (n=75) with a socio-geographically matched comparison group (n = 62) who had not followed any parenting program. The 75 ICDP attended caregivers consisted of one participant who had participated in the ICDP course in 2004, six participants who had participated in 2007, thirty-one participants who had participated in 2008, and thirty-five participants who had attended the course early in 2009 (two participants did not answer). The questionnaires were completed in November 2009. Caregivers were selected through a convenience sampling process from needy and vulnerable areas based on the accessibility and proximity to the researchers.

Measuring Instruments and Outcomes. As a measuring tool, this study used the ICDP principles-based questionnaire, called "ICDP Participation", that involved 14 study-specific questions about perceived reception and effects of the program, and personal experiences. Results identified that the caregivers who had attended the ICDP course reported their group had functioned well and they would recommend the course to others. 62% found the program easy to understand, and all except one (98.6%) said that they had applied the principles of ICDP in practice. Nearly all had

noted changes in their children (98.6%), their families (97.2%), and themselves (98.6%) after they attended the ICDP course.

The Prosocial and Conduct Problem subscales from the Strengths and Difficulties Questionnaires (SDQ) were used that developed by Goodman in 1999. The ICDP caregivers reported lower scored on child's conduct problems than the comparison caregivers who did not attend the intervention course; the difference was significant.

In addition, caregivers' depressive symptoms were measured through the Shona Symptom Questionnaire developed by Patel and others in 1997. The study findings indicated the ICDP caregivers scored lower than the comparison group on depression symptoms which were not significant.

A visual analogue scale, Short Form Health Survey developed by Ware, Snow, Kosinski, and Gandek in 1993, was used for measuring caregivers' self-reported health and quality of life. The study results reported that the ICDP caregivers scored significantly higher than their counterparts on life quality (M = 61.67 vs. 55.05) with effect size, d=0.25. However, the ICDP group also rated their general health higher (M = 65.53 vs. 60.38) than the comparison caregivers which were not significant. By using the Generalised Self-Efficacy Scale developed by Schwarzer and Jerusalem in 1995, findings indicated that the ICDP group reported significantly higher scores than the comparison group on self-efficacy (M = 3.51 vs. 3.14) with effect size (d=0.41). Likewise, this study used other parent-reported measures that is psychological aggression scale, physical discipline scale, and attitude towards parenting. The study showed a significant difference of 18.3% of the ICDP caregivers especially using "pinch/shaking the child" and 21.0% of the comparison caregivers reported using "hit the child" as harsh punishment as part of the physical discipline scale. Further findings regarding attitude towards parenting showed that the ICDP group had significantly higher agreement scores than the comparison group on statements about expanding the child's experience (M = 2.68 vs. 2.43), helping the child to focus attention (M = 2.82 vs. 2.55), adjusting to the child's interests (M = 2.84 vs. 2.64), and showing feelings and enthusiasm (M = 2.87

vs. 2.48) where effect sizes were moderate. For the remaining statements about parenting behaviours, the groups did not differ significantly and effect sizes were small.

Overall, the ICDP caregivers group demonstrated better parenting skills, including a shift in physical punishment away from hitting, and their children exhibited fewer conduct problems, better child adjustment, higher scores on health, self-efficacy and life quality and lower scores on mental health difficulties than the comparison group who had not followed any parenting program. This reviewed study has used effect size analysis that would be the strength here despite using a quasi-experimental design.

4. An evaluation study in Colombia investigated the effects of the ICDP and the specific addition of a violence prevention module by Skar et al., (2017). This study used a three-group RCT design. 176 parents of 3- to 4-year old children were randomly allocated to one of three conditions: 1) community activities and the regular ICDP condition (CA + ICDP); 2) community activities, the shortened ICDP, and a preventive violence curriculum (CA + ICDP + VC); and 3) a control group with only community activities (CA). Participants were measured at baseline and at 6-months follow-up.

Measuring Instruments and Outcomes. The Shona Symptom Questionnaire was used for measuring the mental health of caregivers. This study indicated that 33 caregivers (19.2%) scored above the SSQ clinical cut off (scored 8 or above), indicating a risk of common mental health problems, such as depression and anxiety.

The Exposure to Violence Interview subscale from the Chicago Youth Development Study (CYDS) Stress and Coping Interview developed by Tolan and Gorman-Smith in 1991 was used for measuring the caregivers' experience with community violence in this study. The study revealed that 58.5% of the caregivers had been exposed to some form of community violence and 47.2% had experienced such incidents the last year. Among caregivers who had been exposed to community violence

in the last year, witnessing violence was most common, such as 27.8% reported having seen someone being beaten up, 22.2% had a family member robbed or attacked, and 14.2% said that a family member or close friend had been killed at baseline assessment. Of the 176 caregivers, 9 (5.1%) reported having been the victim of a violent crime. In addition to this, the Hurt, Insult, Threaten and Scream (HITS) Questionnaire developed by Sherin and others in 1998 was used for measuring victimisation of intimate partner violence. This study identified 20 caregivers (11.4%) had been victims of intimate partner violence, and 11 (6.3%) reported being perpetrators of intimate partner violence. For measuring sexual abuse, a question was created and scored in the same manner as the HITS. Findings revealed that none of the participants reported sexual assault incidents at home. Psychological aggression, physical assault, and non-violent discipline were completed by caregivers. Findings showed that 14 caregivers were both victims and perpetrators of domestic violence. In addition, 98.3% of caregivers engaged in nonviolent disciplinary tactics for correcting their child's misbehaviour. The most frequent technique was explaining why something was wrong (90.3%). Almost the same percentage of caregivers engaged in some form of physical discipline with their child (97.7%).

The study results showed that the comparison group who received only CA had a reduction in reported rates of intimate partner violence from 11.8% at baseline and 5.9% at follow-up, whereas caregivers attending the ICDP intervention had a reduction from 11.9% at baseline to 3.4% at follow-up ($p = .05$). Yet, those attending the CA + ICDP + VC intervention benefited the most, with a decrease in reported rates of exposure to partner violence from 10.6% to 1.5% ($p = .02$). There was also a small reduction in caregivers' reports of violent behaviour toward their partners across groups, and in the CA + ICDP + VC group, but this change did not reach statistical significance.

Results identified the prevalence of child violence decreased in all three groups however, larger improvement was shown for the intervention groups, especially for the community activities, ICDP and violence curriculum group. Overall, the ICDP seems effective in reducing violence in combination with a specific violence prevention curriculum.

5. An Iranian experimental pilot study was designed to assess the effectiveness of ICDP for examining parental self-efficacy as a determining factor of healthy mother-child interaction (Abarashi et al., 2014). Forty mothers of children under 3 years of age were recruited from a central hospital child-caring centre. After participants' consent, pre-assessment for all participants was completed first and then the mothers were randomly divided into an experimental (n=20) and a control (n=20) group. Both groups were matched based on the ages of children, education of mothers, and socio-economic status of the families. The experimental group received one hourly 6-week ICDP sessions for improving mother-child interactions whereas the control group did not receive any treatment. Both groups completed the questionnaire at the end of the last session of ICDP as a post-test and one-month follow-up.

Measuring Instruments and Outcomes. Both groups were assessed through the Parenting Self-Agency Measure (PSAM) developing by Dumka, Stoerzinger, Jackson, and Roosa in 1996. It consisted of 10 items with 5 positive and 5 negative questions for assessing the efficacy of mothers in behaving with their children. The scale ranged on a 7-point Likert scale with the scoring option "seldom"=1 to "always"=7. The reliability and validity of the PSAM were 71% via test-retest within two weeks which were satisfactory. Results indicated that the experimental mothers scored higher in PSAM compared to the control group mothers.

6. The article titled, "the long-term effectiveness of the international child development programme (ICDP) implemented as a community-wide parenting programme", was conducted by Skar et al., (2015). To see the long-term impact of the ICDP on parents, the study used a two-group design where one group attending the ICDP course (n=79) and other non-attending comparison group (n=62). Both groups completed questionnaires at the first group meeting, immediately after the last group meeting, and 6 to 12 months later as follow-up (sending questionnaire by mail with one reminder). The focus child of ICDP parents was 3.6 years on average whereas comparison parents' child age was 3.4 years on average.

Measuring Instruments and Outcomes. The Parent-Child Activity Scale was used to identify caregiver-child activities. Caregivers were asked to indicate the total

number of hours the child spent watching television and playing computer games. As like study no. 2 reviewed in this document, Skar et al. (2015) also measured positive discipline, household commotion, happiness with partner-a visual analogue scale, parenting strategy, child management, child behaviour by using the Strengths and Difficulties Questionnaire, and mental health by using the Hospitalized Anxiety and Depression Scale. This study also assessed caregivers' health and quality of life as well as caregivers' self-efficacy by using the Generalised Self-Efficacy Scale as study no. 3 reviewed above. Besides these, this study measured caregivers' loneliness, life satisfaction, and self-esteem.

The findings indicated that there were differences between ICDP and comparison groups but at a somewhat lower level for most of the measures, such as parenting strategies, child management, and less television viewing and playing computer games, from pre-assessment to 6-12 months follow-up after the intervention. ICDP caregivers reported a decline in loneliness measure in comparison to the non-ICDP group which indicated a continuous beneficial effect of ICDP on improving the psychosocial health of parents due to loneliness reduction over time.

7. Earlier, the same authors from the above-reviewed study conducted another research on imprisoned fathers (Skar et al., 2014b). The study is a mixed method design with the combination of pre-post design with a comparison group and qualitative design, including the interview. A group of incarcerated fathers (n=25) of children aged on average 6.4 years was compared to community fathers (n=36) having children being 5.1 years old on average, who attended the ICDP courses in Norway. A set of questionnaires was assessed by both groups of fathers during first meeting and during last meeting of the ICDP course. In addition, a semi-structured interview was conducted within one week of the last meeting of ICDP with 20 imprisoned fathers regarding content, implementation, potential benefits, and recommendations for improvements.

Measuring Instruments and Outcomes. As above-mentioned studies, this study also used a 7-item positive discipline questionnaire, parenting strategy questionnaire, child management questionnaire, SF-36 VAS for health and quality of life measures,

the Satisfaction with Life Scale, the Generalised Self-Efficacy Scale, the Hospital Anxiety and Depression Scale, and the Strengths and Difficulties Questionnaire. This study measured emotional engagement with the child that consisted of 6 bipolar items, such as good-bad, loving-unloving, adjusting-directing, talkative-non-talkative, teaching-unengaged, and sensitive-insensitive. This emotional engagement scale with mean scores that could range from 0 to 42 was therefore created; a higher score represented greater emotional engagement. This study used the Basic Emotion Trait Test (BETT) that developed by Vitterso, Dyrdal, and Roysamb in 2005.

Paradoxically, the self-reported scores indicated that the imprisoned fathers had a more positive parental image of themselves than the community group fathers, with better self-rated child management skills before attending the ICDP course. After attending the ICDP course, these group differences narrowed because the scores decreased in the prison group and increased in the comparison group, probably reflecting more realistic appraising. Findings suggested that the community group fathers believed that they were more competent in their parenting after the ICDP course, while the scores of the imprisoned fathers, supplemented by the interviews, suggested that they had become more realistic and aware of how they had filled their father roles.

8. Clucas et al., (2014) investigated whether mothers and fathers benefitted equally from participating in the ICDP as a community-wide program in Norway in respect of their parenting behaviour, perceived child difficulties, and their psychosocial health. This study used pre-post, between-subject group design with mothers (n= 105) and fathers (n= 36) who attended regular ICDP course. The participants were informed about the evaluation project, signed consent, and completed the first questionnaire at the first meeting of ICDP and the second questionnaire completed at the last meeting of ICDP or returned it by mail.

Measuring Instruments and Outcomes. As like previous evaluation studies, this comparison study measured activities with the child, positive discipline, commotion in the household, parenting strategy, engagement with the child, child management, happiness with partner, child's behaviour indicating strengths and difficulties, caregivers' health and quality of life, loneliness, life satisfaction, self-esteem, self-

efficacy, trait emotions, and anxiety and depression. This study also measured how many hours the mother and the father spent with the child on a typical weekday.

The results suggested that both mothers and fathers showed a similar pattern of change after attending the ICDP. There were significant changes in scores for parenting strategies, positive discipline, engagement with the child, and child management. The mothers scored better on most of the measures, such as parenting strategies, emotional and interactive engagement, child management, and participated in more activities with the child which might be reflecting more experience with parenting. Moreover, the fathers improved on the parenting strategy scale, reflecting the comprehension dialogue with the child in comparison to the mothers. The findings indicated that the ICDP course increased the fathers' knowledge about child development which in turn contributed to making them more competent parents, increasing their self-efficacy, and reducing anxiety.

More recently, the ICDP has been implemented and evaluated among a diverse group of caregivers. In particular, the ICDP was conducted in Swedish schools to promote positive teacher-student interaction and relationships (Berggren et al., 2021). From the background of malnutrition and poverty, the ICDP was conducted along with a nutritional supplement to the professional caregivers at the child centres in Mozambique for supporting healthy child development (Skar et al., 2019). In Swedish study, the researchers used a pre-post design with intervention and control schools where Mozambique study used wait-listed comparison groups. Both studies did not to use randomisation for controlling potential confounders.

In sum, the above ICDP evaluation studies help the researcher to identify the gap and minimise the short-comings to design this doctoral research. The ICDP studies were conducted for various purposes across different countries. The purpose of Bosnia-Herzegovina study was focused on children's psychosocial functioning as well as their mothers' mental health (Dybdahl, 2001). Most of the studies that conducted in Norway and Mozambique focused on parenting behaviour (such as

activity with the child, positive discipline, parenting strategy, and so on), household commotion, relationship with partner, and parental mental health (Norway: Clucas et al., 2014; Norway: Sherr et al., 2014; Mozambique: Skar et al., 2014a; Norway: Skar et al., 2014b, 2015). Only one study was concerned about mothers' self-efficacy as one of the main determining factors of healthy mother-child interaction (Iran: Abarashi et al., 2014). Other significant constructs that were examined with these above-mentioned studies were parental confidence, self-efficacy, and self-esteem. After reviewing changes of these constructs, the researcher identified mother-child positive interaction would be improved through mothers' sense of competence, parenting practices, and mothers' responsiveness. Therefore, the researcher emphasises changing these constructs from evaluating ICDP in the context of Bangladesh.

Parents who have participated in the ICDP intervention have reported improvements in parenting behaviours, such as expanding the child's experiences, focusing on the child's attention, adjusting to the child's interests, and showing positive feeling and enthusiasm (Skar et al., 2014a). Other studies indicated that participating parents reported better child management and less impact of child difficulties in comparison to comparison group parents (Clucas et al., 2014; Sherr et al., 2014). Three studies used randomised controlled trials (Abarashi et al., 2014; Dybdahl, 2001; Skar et al., 2017) and one recent study used a wait-list comparison group (Skar et al., 2019). Most of the published studies were used quasi-experimental designs and limited due to not using randomised controlled trials (RCT). More specifically, the prison study did not include prison control group (Skar et al., 2014b). This makes conclusions about change being due to the ICDP intervention program difficult as the changes in the prison group compared to the community group may have been caused by other time-related trajectories related to the prison environment. Similarly, another study reported a comparison between mothers and fathers in an ICDP intervention group without including any control group (Clucas et al., 2014). Other important limitations included variability in attendance and loss to follow-up by approximately half of the participants, which may have skewed the results for successful participants (Sherr et al., 2014).

All of the reported studies used self-report measures as the outcome measure which was another significant short-comings of ICDP evaluation studies. Self-report

measures are considered as short-coming due to being subject to social desirability response bias. Though self-report measures are the most practical way of assessment, a discrepancy may have found between self-reported measures and observed behaviours (Benzies & Barker, 2016). Thus, the current study researcher uses direct observation (video-recording) in addition to self-report questionnaires to minimise the measure biasness. Most of the studies used pre and post-test design while two studies used follow-up. Abarashi et al. (2014) conducted assessment at pre, post, and one-month follow-up whereas Skar, von Tetzchner, Clucas, and Sherr (2015) assessed more sustained effects at pre, post, and 6-12 months follow-up. Another significant weakness of ICDP study was using mail for post-test questionnaire return from the participants which reduced numbers at the post-test (Clucas et al., 2014).

From reviewing several ICDP-based studies, the researcher may conclude that long-term follow-up evaluation with RCT design and observation of caregiver-child interaction would enhance the quality of the intervention evaluation. Even in intervention science, the researchers consider choosing RCT as an evaluation design (Benzies & Barker, 2016). This is because RCT compares between two groups in which one receives the intervention and the other group either receives the same intervention as the wait-listed control group or receives an alternative or no intervention. For this PhD study, the researcher includes RCT with wait-list control groups and qualitative observations of mother-child dyads along with qualitative interviews of mothers to reduce methodological shortcomings, such as controlling confounding variables, data collectors' skills, data collectors' biasness by knowing the group randomisation, social desirability response bias and recall bias of conducting interviews (Benzies & Barker, 2016). Therefore, intervention science also emphasises the combination of qualitative and quantitative data to provide a holistic understanding of the evaluation impact (Benzies & Barker, 2016). Overall, the previous studies showed improvements in parenting constructs (that is, activity with the child, parenting strategy, positive discipline, engagement with the child), parental confidence, caregivers' self-efficacy, self-esteem, and parental mental health. However, the early ICDP evaluations have been limited in way of using only self-reported measures and in some cases using qualitative interviews. This is the reason; the researcher uses both quantitative and qualitative measures. The researcher chooses widely used measures that especially assess mothers' sense of

competence, mothers' parenting practices, and positive interaction constructs. To examine the changes in these constructs, the researcher uses the parenting sense of competence (PSOC) scale, parenting and family adjustment scale (PAFAS)-parenting subscale, IT-HOME, observational rating scale, and semi-structured interviews. The following Section discusses parenting programs focusing on parenting skills and self-efficacy.

2.2.4 *Parenting Programs focused on Parenting Skills and Self-Efficacy*

Promoting children's mental health status through improved parental self-efficacy is an important aspect in the first three years of children's lives (Abarashi et al., 2014). Parental self-efficacy beliefs and their involvement in children's activities are part of parenting skills and practices (DesJardin, 2003). Studies showed that effective parenting practices, such as using praise and acknowledgment of children's activities, and using appropriate discipline techniques, are considered as protective factors for children's development (Webster-Stratton & Taylor, 2001). This section introduces parenting interventions focused on self-efficacy and parenting skills.

Triple P- Positive Parenting Program

Triple P was developed in Australia based on social learning theory and the principles of behavioural, cognitive, and affective changes (Sanders, 2008, 2012). It is another significant multi-level parenting program that seeks to help parents increase their confidence, skills, and knowledge about raising children; to be more positive in their daily interactions with children; to be less coercive, depressed, stressed, or anxious; to have less conflict with partners over parenting issues; and to have lower levels of stress and conflict in managing work and family responsibilities. To accomplish this goal, this intervention incorporates a five-level tiered continuum of increasing strength for parents of children from birth to age 16. This program evolved from a small home-based individually administered training program for parents of preschool children. The rationale for the multilevel strategy of Triple P is that there are differing levels of dysfunction and behavioural disturbance in children, and parents also have different needs and preferences regarding the type, intensity, and mode of assistance they may require. The tiered levels of Triple-P are:

i) Universal Triple-P involves the implementation of media and informational strategies relating to positive parenting;

ii) The Selected Triple P program has brief and flexible parenting consultation and advice with individual parents and parenting seminars with large groups of parents;

iii) Primary care Triple-P is especially appropriate for narrow focus parents' skill training, especially for parents of infants, toddlers, and pre-schoolers with respect to common child behaviour problems and parenting challenges;

iv) Standard Triple-P combines the provision of information with active skills training and support, as well as teaching parents to apply skills to a broad range of target behaviours; and

v) Enhanced Triple P (Level 5) is an optional augmentation of Standard (Level 4) Triple P for families with additional risk factors that might need the intervention (Sanders, 2012).

An evaluative study of Triple P conducted at 20 geographical catchment areas in Australia included all parents of 4-7-year-old children. Intervention groups showed a greater reduction in behavioural and emotional problems in children and coercive parenting and parental depression and stress than the comparison group (Sanders et al., 2008). The strengths of this evaluation are the use of multi-level interventions with a multi-disciplinary team to deliver the intervention, and a blend of universal to targeted components of the intervention in a comprehensive way. It is also cost and time effective as it covers a wide range of participants. Another systematic review and meta-analysis that covered 101 studies over a 33-year period found significant short-term and long-term effects on children's social, emotional, and behavioural outcomes; parenting practices, parenting satisfaction and efficacy; parental adjustment; parental relationship; and child and parent observational data (Sanders et al., 2014). This program has also been conducted with Indonesian parents with reported acceptability and efficacy of a brief intervention program through a parenting seminar, titled "The Power of Positive Parenting". The seminar introduced five positive parenting principles, such as ensuring a safe and engaging environment, creating a positive learning environment, using

assertive discipline, having realistic expectations, and taking care oneself. The results showed the improvement of parenting practices and child behaviour that ensured cultural acceptance and effectiveness for Indonesian parents (Sumargi et al., 2015). The main positive aspect of this program is its cultural acceptancy, cost effectiveness and time efficiency. Though it assumes a brief and effective program, it requires specific training.

Incredible Years (IY)

The Incredible Years (IY) is another parenting intervention for enhancing parenting competencies to reduce disruptive children's behaviour (Webster-Stratton & Hancock, 1998). This intervention consists of two components. One component addresses play, praise and rewards, limit setting and handling children's misbehaviour, called the BASIC component of IY. Here, parents learn how to use child-directed play skills, use less critical statements and harsh discipline, and how to increase the use of positive and consistent strategies. Another component elaborates on the Basic program and covers topics such as how to cope with upsetting thoughts and depression, communication skills and solving problems with adults and children. This is called the ADVANCED component of IY. This Advanced component has been shown to validate the effects of the Basic program (Posthumus et al., 2012).

An evaluation study of IY Basic parent training was conducted in North and Mid-Wales with 133 families who had children aged between 36 and 48 months with conduct problems and ADHD. Twelve intervention groups received this program and were taught the Basic component skills of IY. After the intervention, parents reported significantly lower levels of inattention and hyperactive/impulsive difficulties in intervention children in comparison to the control group children. This evaluation study used RCT with 2:1 basis distribution into intervention and wait-list control group so that more participants could attend the parenting intervention. In addition, the post-assessment was conducted after 6 months of intervention termination to see the effect over time. Such methodological aspects made this study significantly effective though it was conducted only on the basic components of IY (Jones et al., 2007). Another recent matched case design where participants were selected based on their place of residence and allocated to either the intervention or control group, was conducted in the Netherlands with 72 parents in the intervention group receiving the IY program and 72

families receiving Care-as-Usual as the control group. In such a matched case design, randomisation was not possible due to geographical reasons. This study was evaluating both the basic and advanced components of IY and findings revealed a sustained effect of the program with improvements in observed parenting skills and decreases child behaviour problems (Posthumus et al., 2012). Here, Posthumus and his colleagues used two additional "booster" sessions at two time points after the intervention termination; conducted follow-up two years later which showed the sustained effect of this intervention. The following Section reviews interventions specifically conducted with families in lower socio-economic circumstances.

2.2.5 *Parenting Interventions in Underprivileged Contexts*

Research demonstrated the importance of early interventions that can respond towards biological and environmental disadvantages and prepare children in a way to reach their developmental potentialities (Brooks-Gunn et al., 2000). This section discusses a multi-site parenting intervention called the Elmira Nurse-Family Partnership (NFP), and other significant programs that are conducted with low-income families.

Elmira Nurse Family Partnership (NFP) Program

One of the big multi-site home visiting interventions in the USA was the Nurse-Family Partnership (NFP) program that was conducted between 1978 and 1980 in lower socio-economic families in Elmira, New York. The NFP was focused on improving the outcomes of pregnancy, quality of parenting related to child health and developmental outcomes, and maternal life course development including mothers' stress relevant to poverty. In this program, mothers were recruited from pregnancy and participated in the program up until their child was two years old (Olds et al., 1986; Powell, 2006). This

NFP emphasises the therapeutic relationships between nurses, mothers and other family members. Through modelling, the mothers were provided with how to take care of and support their children. By examining this, the NFP evaluation was assessed. Consequently, the NFP was evaluated in three successive RCTs in Elmira, Memphis in the early 1990s (Kitzman et al., 1997), and Denver in the mid-1990s (Olds, et al., 2002).

A 15-year follow-up study of adolescents born in Elmira to the NFP receiving families showed fewer instances of running away, arrests, convictions, and violence with fewer using alcohol and drugs in comparison to control group children. In addition, parents in the intervention group reported fewer uses of alcohol and drugs; however, there were no program effects on other behavioural problems, such as running away, arrests, and convictions (Olds et al., 1998).

Recently, the U.S.A. government has taken initiative to set criteria for identifying which home-based programs are effective for a specific community. In this regard, the U.S. Department of Health and Human Services (DHHS) conducted the Home Visiting Evidence of Effectiveness (HomVEE) review in 2009 by considering the eight maternal and child outcomes, that is, (i) child health, (ii) child development and school readiness, (iii) reductions in juvenile delinquency, family violence, and crime, (iv) maternal health, (v) positive parenting practices, (vi) reductions in child maltreatment, (vii) family economic self-sufficiency, and (viii) linkage and referrals to community resources and supports. An intervention was considered effective if it demonstrated favorable and statistically significant impacts on either one or two of eight above-specified maternal and child outcomes (US Department of Health and Human Services, 2013). Under the DHHS review study, Sujan and Eckenrode (2017) conducted a need assessment or feasibility study to examine associations between risk factors and individual outcomes maternal and child outcomes to determine what programs are effective in a target community, like Elmira. Using data, collected between 1978 and 1980, from 141 control group families of the Elmira Nurse-Family Partnership (NFP) program, findings of need assessment suggested several risk factors for lower socio-economic families in Elmira, such as child maltreatment, poor family economic conditions, and poor child academic achievement. Such need assessment analyses indicating that the NFP and Parents as Teachers both home-based programs were particularly beneficial to implement in Elmira, New York (Sujan & Eckenrode, 2017).

As NFP program already has a 15-year follow-up study that showed its effectiveness, the recent Elmira-based need analyses proved its beneficial impacts for Elmira people.

Parenting Program in Jamaica

In the case of disadvantaged families with preschool-aged children, the literature shows a wide spread acceptance of parenting programs in advanced countries whereas published works involving parenting programs are relatively sparse in less developed countries. However, one study of a home visiting based program for urban poor in Jamaica exhibited a positive association between the frequency of home visits and children's learning and development, improving the quality of mother-child interactions and self-esteem for both mothers and children (Powell & Grantham-McGregor, 1989; Tolani et al., 2006).

Triple-P in Underprivileged Context

Though there is limited evidence about the efficacy of parenting programs for Indigenous families in Australia, one study examined the effects and cultural appropriateness of group Triple P for Indigenous families. Findings revealed a significant decrease in the rates of children's behavioural problems and less reliance on some problematic parenting practices by the parents who attended this group Triple P early intervention program (Turner et al., 2007).

Hands-On Parent Empowerment (HOPE) Program

In Hong Kong, a 30-session pilot trial of the Hands-On Parent Empowerment (HOPE) Program was conducted for the parents of disadvantaged backgrounds to teach learning skills to their preschool children. The results showed a noteworthy decrease in parent-reported child behaviour problems and parental stress, and an increase in Performance IQ and vocabulary knowledge among the children (Leung e al., 2010).

Integrated Child Development Services (ICDS)

In another example, India's Integrated Child Development Services (ICDS) is considered as the world's largest integrated early childhood program. The evaluation studies on ICDS have found a significant positive impact on the survival, growth, and development of young children (Gupta & Sharma, 2006). The mothers of ICDS children had positive attitudes towards their children's education, health, and play behaviour (Chaturvedi et al., 1989).

In summary, it can be said that the existing studies with disadvantaged populations revealed the necessity of parenting interventions in the early childhood years for empowering caregivers so that they can become sensitive towards their children's signals, develop awareness about positive interactions, and gain knowledge regarding child development. The following Section reviews parenting interventions conducted in Bangladesh.

2.2.6 *Parenting Interventions in the Bangladeshi Context*

There are sparse records of parenting programs conducted in Bangladesh. As discussed previously in Chapter 1, parenting programs are conducted and studied through projects and policies undertaken by the Bangladesh government in collaboration with NGOs. Very few such activities are focused on parents; most are focused mainly on health and nutrition (Hamadani et al., 2014). One example is the "Integrated Community Development Program", implemented in the three hill tracts in Chattogram in 1997 by the Ministry of Chittagong Hill Tracts Affairs (MoCHTA) with support from the United Nations Children's Fund (UNICEF). The program's primary aims were to promote immunisation, use of safe drinking water, hand-washing, sanitation and early childhood care and education (ECCE) and to prevent anaemia in small communities. Though the program focused on physical health and nutrition, it found to have significantly contributed to raising awareness on early childhood development issues. Simultaneously, it improved education for children and parents and the latter's knowledge on health and nutrition (Hamadani et al., 2014). On the other hand, it identified a lack of parenting knowledge over the practice of positive parent-child interactions alongside child development and its importance in the lives of parents and children.

Among the programs carried out in rural areas, Plan Bangladesh conducted two parenting interventions. The first consisted of group sessions with mothers of children below three years of age (Aboud, 2007) whereas the second used home visits for psychosocial stimulation with mothers of malnourished children aged 6-24 months (Hamadani et al., 2006). The findings from both interventions demonstrated improved knowledge of child rearing and higher scores on the Home Observation for Measurement of the Environment (HOME) inventory. Another psychosocial stimulation trial, also using home sessions for mothers of 6-24-month-old children, found improvements in children's mental development and Family Care Indicators (Tofail et al., 2013).

In an urban hospital-based intervention, parenting trials on psychosocial stimulation demonstrated a significant improvement in children's mental and motor abilities and growth in weight measure (Nahar et al., 2009). Findings from another intervention focused on responsive feeding and stimulation (Opel et al., 2008) demonstrated higher scores on the HOME inventory and increased responsive conversations of caregivers with children (Aboud et al., 2008). Specifically, mothers could recall more information and children gained more weight and had a higher percentage of self-fed mouthfuls after receiving interventions.

Another 10-month parenting program was carried out combining group meetings and home visits for mothers of children aged between 4 and 14 months in rural areas. It was aimed to address aspects of hygiene, responsive feeding, play, communication, gentle discipline and nutritious foods. Its main findings demonstrated that there was a strong intervention effect in promoting cognitive and language development of the children. This intervention pointed out improvements in three areas of parenting practices, namely opportunities for stimulation of the child in the home, dietary diversity in terms of breastfeeding and variety of foods, and knowledge about early ages for child development (Aboud et al., 2013).

To conclude, most of the existing parenting programs are grounded on health and nutritional benefits. However, these interventions are telling parents what to do with their children's health benefits rather than focusing on existing positive parent-child interactions to maximise children's overall development. Please see Table 2.1 for a

summary of parenting interventions. The following Section presents the rationale for selecting the ICDP as an appropriate intervention framework.

2.2.7 *Rationale for Selecting the ICDP as an Intervention Framework*

For this study, the researcher chose to adapt ICDP as a parenting intervention framework after a critical review of other parenting interventions. In comparing with USA based multi-site Elmira Nurse-Family Partnership (NFP) program, participants of ICDP were recruited for a relatively short period (8 to 10 weeks intervention session) while NFP recruited its participants from pregnancy to children's two years of age (Olds et al., 1986; Powell, 2006). Due to time limitation of doctoral study and retention of underprivileged parents, it was preferred to choose an 8-week ICDP intervention over a 3-year NFP intervention. In comparison to attachment focused parenting interventions, e.g., Video-feedback Intervention to promote Positive Parenting (VIPP; Juffer et al., 2008) and Circle of Security (COS; Hoffman et al., 2006), the ICDP has both attachment and mediated learning components of interaction that make ICDP more enriched in its content. Despite the importance of mother-child positive interaction, the existing Bangladeshi parenting interventions have primarily focused on health and nutrition. Hence, ICDP would be the best-known choice of intervention focusing on mother-child positive interaction.

The researcher has identified another difference between ICDP and widely used other parenting interventions (Incredible Years; Webster-Stratton & Hancock, 1998; Triple P; Sanders, 2012; Turner et al., 2007); that is ICDP's universal culture-friendly structure to show that the ICDP is more likely to be effective in Bangladesh. Thus, it focuses on facilitating the existing skills of the parents rather than imposing the ideas or giving instructions to the parents. In addition, the ICDP helps to sensitise parents so that the caregiver is gradually aware of her own competence and skills as a caregiver and at the same time she identifies the positive qualities of the child. Overall, the ICDP is a resource-based communication and mediation approach for improving caregiver-child positive interaction. It is also known as a low-threshold collaborative parenting intervention with easy accessibility and low levels of bureaucracy (Bulling, 2017). As a low-threshold program the ICDP does not require any prior referral or assessment (Løkke, 2009; Suleymanov, 2015). Caregivers of any background can understand the ICDP's simple messages regarding children's basic psychosocial care. Simultaneously,

these messages summarise current scientific knowledge about childcare and development (Hundeide, 1991; Rye & Hundeide, 2005). Furthermore, the researcher is certified for facilitating this program which is another practical reason for selecting it as an intervention tool.

In short, the ICDP's simple, universal, and culture-friendly structure satisfy the researcher to select it as an intervention framework for this study. To date, it has been used in more than 30 countries including Norway, Sweden, Mozambique, the United States of America, Colombia, South Africa, Russia, Lebanon, Angola, and Macedonia. The ICDP was evaluated by the Division for Mental Health of the World Health Organisation (WHO) in Geneva, in 1993. Then it was adopted, and its manual published as a WHO document (International Child Development Programme [ICDP], 2018).

2.3 CONCLUSION

This chapter has presented the theoretical framework for the present study. As the main goal of this study is to adapt, implement, and evaluate a parenting intervention in Bangladesh, the context in which mother-child dyads are assessed and in which the intervention is implemented is important. Thus, Bronfenbrenner's bio-ecological model is an appropriate theoretical framework for this study. The literature review presented in this chapter highlights the importance of early childhood development in both the international and Bangladeshi context. This Chapter has presented an overview of key parenting interventions relevant to improving parent-child attachment, enhancing parenting self-efficacy and skills, and promoting parent-child positive interaction. As the current study is to be implemented in an underprivileged context, this Chapter has also emphasised parenting interventions which have been conducted in lower socioeconomic conditions. Finally, the Chapter focused specifically on interventions in Bangladeshi context and a rationale for selecting the ICDP as an appropriate intervention framework for this study. The following Chapter presents the Research Design and Methodology for this study.

Table 2.1

Overview of Key Parenting Interventions

Concept	Parenting Interventions	Authors & Year	Origin	Type & Duration	Sample	Design	Underlying Mechanisms for Improvement
Parent-Child Attachment	Video-feedback Intervention to promote Positive Parenting (VIPP) & VIPP-Sensitive Discipline (VIPP_SD)	Juffer (1993); Juffer et al. (2008, 2009)	The Netherlands	Three home sessions Home-based; Four to six sessions	130 adoptive families with children aged 9 to 12 months old (pilot study)	Randomised Controlled Trials	Maternal sensitivity was improved as mother-child interactions were video-taped for the first time and giving video-feedback to the mothers during intervention
		Klein Velderman et al. (2006)	The Netherlands	Four home visits	81 first time mothers from low SES with 7 to 10 months old children; assigned into 2 interventions (VIPP & VIPP-R) or a control group		Practicing mothers' sensitive responsiveness to their children by measuring 10 minutes 'free play' at 3 points of time along with discussing mothers' childhood attachment representation (VIPP-R)
		Kalinauskiene et al. (2009)	Lithuania	Five home-based sessions; approximately 90 min. for each session	54 of low sensitive, non-clinical, middle class mothers with approximately 7 to 12 months old infants; assigned into intervention and control group		14 minutes free play between mother and child assessment at 2 points of time, examining infant-mother attachment, mothers' stress and depression, infants' temperament, and mothers' sense of competence are helpful for improving sensitivity

		Groeneveld et al. (2011)	The Netherlands	Six home-based session (a caregiver with a group of children); approximately 90 min. session	48 mothers randomly assigned into intervention or control group		Children receive more stimulating environment, maternal involvement, having joint activity through play materials, fulfilling emotional and verbal queries etcetera indicating the improvement of global child care
	Circle of Security (COS)	Hoffman et al. (2006);	United States of America	20-week group intervention with five groups, five to six caregivers in each group for 75 minutes over 3 years under 3 experienced Psychotherapists	65 preschooler-caregiver dyads	**Pre/Post Intervention Design**	Individualized treatment plan was developed by identifying caregiver-child interaction pattern; identifying caregiver's developmental history and internal working models of self and child; and identifying key working issues, such as- fear of assuming parenting role for specific dyads. Underlying mechanism for COS success was improving child attachment pattern through assessment.
		Huber, McMahon, & Sweller (2015)	Australia	20 weekly 90 min. group sessions with 2 trained therapists under 18 groups of 4-6 caregivers each group; over 6 years period	83 clinically referred parent-child dyads, child aged 13 to 88 months at pre-assessment	**Pre/Post Sequential Cohort Design**	Internal working models of caregivers are dynamic, influential, and revised in response to parent-therapist's relationships or COS intervention experiences, especially when brought to conscious awareness about caregiver's reflective functioning, caregiving representations and child attachment issues
		Jonsdottir & Coyne (2016)	Australia	16 weekly group sessions	3 mother-child dyads, child aged 1-6 years	**QualitativeCase Study Design**	Learning by modelling of other parents and focusing on self-reflective functioning of parents are underlying process for improving mothers' knowledge
		Fardoulys & Coyne (2016)	Australia	10 weekly group sessions due to less number of participants	2 mother-child dyads, child aged under 5 years with autism spectrum disorder	**Pre/Post Intervention Design**	By measuring primary relational struggle for each dyad is helpful to understand the focus point for dyads; pre-measuring PSOC helps to understand how much improving mothers' sense of competence; assessing child attachment and making individual plan may helpful for shifting mothers' caregiving representation and making overall changed on child attachment pattern
		Horton (2013)	United States of America	8 weekly group sessions	15 residential caregivers, child aged under 12 years	**Pre/Post Intervention, Qualitative (Focus Group &**	The participants' emotion regulation, parental attributions, and parenting discipline measures are underlying process for improving caregivers' practices

						Survey)	
	Circle of Security - Parenting (COS-P)	Væver et al. (2016)	Denmark	10 weekly group sessions	314 families, child aged 2-12months, randomly allocated with ratio of 2:1 into COS-P and into Care as Usual (CAS) intervention	**Parallel Randomized Control Trial with 2 Intervention**	Maternal sensitivity; infant attachment quality, language, cognitive and socioemotional development, family functioning, parental stress, parental mentalizing and maternal mental wellbeing indicating success of COS-P
Parent-Child Positive Interaction	International Child Development Program (ICDP)	Dybdahl (2001)	Bosnia-Herzegovina	5 months intervention	87 mother-child dyads, child aged 5 to 6 years old; randomly assigned to intervention (n=42) & control (n=45) group	**RCT**	Improved maternal mental health and nutritional child growth
		Sherr et al. (2014)	Norway	8 weekly two-hour sessions	Community parents; intervention (n=141) & Comparison (n=79)	**Pre-Post with Comparison Group**	Improved parenting strategies and attitudes and perceived ability to child management and less child distress
		Skar et al. (2014a)	Mozambique	10–12 weekly ICDP group sessions, 6-week follow-up visits at home in addition	Intervention/ICDP (n=75) & comparison (n=62)	**Quasi (Post-Intervention & Comparison Group)**	Parenting, attitudes toward the child and the child's behavior, self-efficacy, life quality, and mental health are underlying issues for improvement after ICDP intervention
		Skar et al. (2014b)	Norway	8 weekly two-hour sessions	Incarcerated fathers as intervention (n=25) & community fathers as comparison (n=36)	**Quasi (Pre-Post with comparison) & post-interview**	Improved parenting practices of incarcerated fathers and child distress; interview revealed incarcerated fathers found this intervention as emotionally challenging
		Skar et al. (2017)	Colombia	12 group meetings for one Intervention group; 2nd intervention group attended 6 intensive session for ICDP +6 for Violence curriculum	176 parents of 3- to 4-years old children	**RCT with 2 intervention & 1 control group**	Rate of child violence decreased in all three groups; severe forms of violence largely reduced in ICDP intervention groups

	The Orion Project	Weiner, Kuppermintz & Guttmann, (1994)	Israel	Home-based, weekly once meeting; 3 to 6 months period	Disadvantaged families: 52 as intervention and 64 as control group; for follow up only 29 families from intervention group assessed	**Pre/Post with 6 months follow up**	Observation of having eight key interactive behaviours within parent and children; positive behaviours are naming with approval, sharing attention, strengthening the weak link, describing to the child what is taking place, providing guidance and approval for children's initiatives, taking the lead, and enjoying pleasant moments together
Parenting Skills & Self-Efficacy	Triple P-Positive Parenting Program	Sanders et al. (2008)	Australia	Using multi-level (up to level 5) intervention, including media and communication strategy, parenting seminars, parenting groups, individually administered programs, & family intervention	All parents of 4-7 years old children from 20 geographical catchment areas: 10 areas as intervention (from Brisbane) & 10 as compared groups (Sydney & Melbourne)	**Pre/post with 2 years follow up**	Intervening behavioural and emotional aspects of children, positive parenting practice for reducing coercive practicing, measuring parental depression and stress, including all parents with specific age of children increasing program awareness, and applying higher levels of exposure to Triple P showed the effectiveness of program
		Sumargi, Sofronoff, & Morawska, (2014)	Indonesian Parents residing in Australia	Single parenting seminar for 90 minutes; titled "The Power of Positive Parenting"	30 parents of children aged 2-12 years	**Pre/post with 3-month follow up**	Measuring parent acceptability, satisfaction, parenting practices, self-efficacy and children outcomes indicated the success of brief seminar intervention
		Sanders, Kirby, Tellegen & Day (2014)		Multi-level parenting program	Over 33 years period, 101 studies comprising 16,099 families	**Meta-analysis**	Improved social, behavioural and emotional outcomes of children for greater parenting satisfaction, practices, and self-efficacy
	Incredible Years (IY)	Jones et al. (2007)	Wales	Basic Component for 12- week group sessions for 2.5 hour; 12 groups formed; receiving weekly telephone calls from group leader for encouraging & monitoring	133 families with child aged 36 to 48 months old	**RCT** (Pre-Post assessment/ Intervention & wait-list Control group)	Parents reported (52%) significantly lower levels of inattention and hyperactive/impulsive difficulties in children comparing to control (21%) children due to child and family factors assessed by interview, questionnaire, and direct behavioral observation

		Posthumus et al. (2012)	The Netherlands	Total 18 group sessions (11 for Basic & 7 for Advance) for 2 hours; 8 groups formed from 6 to 11 parents per group; 2 additional booster sessions at 3 month and at 6-month after termination conducted	72 parents received IY compared to 72 families received Care as Usual; Families were matched on child's gender, aggression level, IQ, parents' educational level, stress level, and address density of the place of residence of the families	**Case Control Design** based on living areas (follow-up after 2 years)	Improved observed and self-reported parenting practices and decreased child's problem behavior
Parenting Interventions on Underprivileged Contexts	Nurse-Family Partnership (NFP) Program	Olds, Henderson, Chamberline, & Tatelbaum (1986)	Elmira, New York	Home-based Program; 9 visits during pregnancy and 23 visits from birth to the child's 2nd birthday	400 pregnant women with no previous life births who were under 19 years old, unmarried, or of low socioeconomic status	**Randomized Controlled Trial**	Improved quality of pregnant women's diets during pregnancy; by the end of pregnancy, women experienced greater informal social support and better use of formal community services
		Olds et al. (1998)			315 adolescent offspring at their 15 years of age	**15-year follow-up RCT**	Adolescents whose mothers received intervention reported fewer instances of running away, arrests, convictions, violations, less using cigarettes, drugs and alcohol compare to control groups; Parents of intervention (nurse visited) groups reported similar as their children said
	Triple P- Positive Parenting Program	Turner, Richards, & Sanders (2007)	Australia	8 sessions: Combination of 6 group sessions (1 rapport session for 1.5-2 hr & 5 sessions for 2-2.5 hr each) & 2 home-based consultation (30-40 min each)	Caregivers of 1 to 13 years old children (n=26 for Intervention groups & n=25 for Waitlist control group)	**Repeated Measures Randomized Group Design**	Measuring caregivers' perceptions about child's behavior, parenting skills and measuring depression, anxiety and stress level were indicating improvement of child's behavior as well as caregivers' practices in intervention groups
	Parenting Psychosocial Stimulation	Powell, & Grantham-McGregor (1989)	Jamaica	Home visits: Biweekly & monthly for two years	152 poor urban children aged 6-30 months	**Randomized Control Trial**	More responsiveness of mothers towards children's signal
	Hands-On Parent Empowerment (HOPE)	Leung, Tsang, & Dean (2010)	Hong Kong	30 sessions pilot trial	13 newly migrated parents	**Before, during, after measures**	Measuring parenting stress and child outcomes

Parenting Interventions in Bangladeshi Context	Responsive stimulation & feeding	Aboud (2007) Aboud, Moore, & Akhter (2008) Opel, Zaman, Khanom, & Aboud (2008)	Bangladesh	10 group sessions for 1 year; Intervention group received regular program + 6-session responsive feeding program & Control received only regular program; Intervention group attended 5 responsive feeding sessions along with 12-session child development parenting program whereas control received only 12-session parenting program	Intervention group (n=170) & control (n=159) group mothers, child aged below 3 years Mothers and their 12-24 months old children 10 interventions and 10 control groups; 8 children in each group along with their mothers, child aged 18-40 months	**Post-test only Intervention-Control Design;** **Cluster Randomized Controlled Trial** **Pre-post intervention-control design**	Knowledge of mothers about good practices, HOME observation, parenting evaluation, mother-child interaction during picture task are underlying process for improving responsive stimulation; child outcomes were measures through receptive vocabulary, nutrition and health status examination; Direct observation and videos were helpful for showing improvement Measuring HOME, mother-child interaction during picture task assessed for seeing intervention impact
	Psychosocial stimulation	Hamadani, Huda, Khatun, & Grantham-McGregor (2006) Nahar et al. (2009) Tofail et al. (2013)		Group meeting & home visits with mother and children for 1 year Daily group meetings and individual play sessions for 2 weeks in hospital; home visit for 6 months 9 months weekly play session at home	107 mothers of malnourished children aged 6-24 months compare to 107 better nourished children's mother Severely malnourished 54 children as intervention and 43 children as control group (both groups admitted at Nutritional Rehabilitation Unit at hospital); Children with Iron deficiency anemia (IDA) as intervention group (n=225) & children with neither anemic nor iron deficient (NANI) as control (n=209); children aged 6-24 months recruited from 30 rural sites	**RCT** **Time-lagged Control Study** **Cluster Randomized Controlled Trial**	Mothers' knowledge of child rearing, child developmental outcomes measure through Bayley test, and overall height, weight of children is indicating improvement After 6 months, intervention group had improved than control; underlying mechanism for assessing improvement through child growth status and using Bayley Scales for Infant Development Psychomotor Development Index (PDI) and Mental Development Index (MDI) from Bayley Scales of Infant Development-II were assessed for measuring the improvement

	Health, nutrition, communication and play	Aboud, Singla, Nahil, & Borisova (2013)		10 months intervention; combination of group sessions and home visits	463 children between 4 and 14 months in a sub district of western Bangladesh	**Stratified Cluster Field Trial**	Improved home stimulation and mother's knowledge of developmental milestones, along with dietary diversity for infants

Chapter 3: Methodology

The purpose of the current study was to adapt, implement, and evaluate a parenting program for disadvantaged families in Bangladesh. This chapter describes the design adopted by this research to achieve the objectives and address the research questions.

This study used a robust study design, that is, a pragmatic randomised controlled trial (RCT; Zwarenstein et al., 2008). An RCT as a research design is commonly used by researchers in health and social sciences. The goal of an RCT study is to evaluate the effectiveness of an intervention by comparing the outcomes of randomly allocated participants into different intervention conditions (Campbell & Stanley, 1963; Glanz et al., 2008; Robson, 2011). This study used both quantitative and qualitative methods of data collection at two points of time.

This chapter provides a summary of the research methodology. Section 3.1 highlights the study design. The study setting and participants are detailed in Section 3.2. The following Section 3.3 describes the intervention program and the underpinning of its theoretical frameworks. Next, Section 3.4 lists all the instruments to be used in the study and justifies their use. Section 3.5 outlines the detailed procedure that was used. After that, Section 3.6 discusses the ethical considerations of the research. Section 3.7 finally concludes this chapter.

3.1 STUDY DESIGN

The current study examined the effectiveness of an intervention to promote positive interactions between underprivileged mothers and their children. In order to assess the effectiveness of the intervention, this study used a randomised controlled trial (RCT) with a mixed-method design. More specifically, the study used a single-blinded RCT with wait-listed control groups (WLC) in which the participants were randomly assigned into either the intervention or wait-listed control groups. The rationale for using an RCT was that it is considered to be the “gold standard” in terms of the level of evidence. An RCT made possible a comparison between the intervention and wait-listed control groups (Benzies & Barker, 2016; Solomon et al., 2009). The RCTs can be categorised as “explanatory” or “pragmatic”. Specifically, an explanatory RCT examines the efficacy of interventions with carefully recruited participants under controlled conditions whereas a pragmatic RCT examines the

effectiveness of an intervention in daily practice under more flexible conditions (Zwarenstein et al., 2008). This study followed a pragmatic form of an RCT that tested the effectiveness of the intervention in the everyday practice of disadvantaged participants.

This study used a mixed-method approach by focusing on the "concurrent triangulation design" in which quantitative and qualitative methods were used separately, independently, and concurrently to assess quantitative and qualitative data convergence (Creswell, 2003; Robson, 2011). The rationale for using mixed-methods was to obtain both close-ended response data (quantitative) and open-ended personal data (qualitative). The integration of the results of quantitative and qualitative data could provide a more holistic understanding of the intervention impact, enhance the validity of findings, help to neutralise the limitations of each approach and provide stronger inferences (Bryman, 2006; Creswell, 2015; Creswell & Plano Clark, 2011).

The parenting intervention that was used in this study comprised an 8-week (once a week) program. The focus of the intervention was to enhance mother-child positive interactions by using emotional, meaning, and regulative dialogues. To evaluate the effectiveness of the parenting intervention, the sample size estimation of this study took into consideration i) the sample sizes of other similarly designed intervention studies involving caregivers at risk that ranged from 40 to 220 participants (Abarashi et al., 2014; Dybdahl, 2001; Skar et al., 2014a, 2014b, 2017); ii) the length of the data collection period of those similar studies ranging from one month to three years; iii) the available timeframe of this research of approximately 4 to 5 months to conduct pre-test, program implementation for intervention mothers, post-test, and the 2nd phase of the program implementation for wait-listed control groups; and iv) the combination of qualitative components, e.g., observation and interviews of all participants. Such factors of this study made it difficult to approximate indicators of effect size and determine sample size via Power Analysis.

A target sample of 100 was considered realistic for this study by considering the timelines and statistics. Five groups of 10 mother-child dyads (n=50) from socio-economically disadvantaged backgrounds in Dhaka, Bangladesh participated as intervention groups compared with five groups of 10 mother-child dyads (n=50) with similar backgrounds as wait-listed control groups. All mothers completed questionnaires, semi-structured short interviews, and were observed in interactions with their children before the intervention. After that, all participants were randomly assigned either to intervention or wait-listed control

groups. During the 1st phase of the intervention, the intervention groups received the parenting program. Thirty-seven mothers out of the 50 allocated to the intervention groups attended the training regularly. After this phase, both groups were assessed again using the same measures as in the pre-test phase. Following post-testing, the wait-listed control groups received the intervention. As this study followed a mixed method design, the effectiveness of the intervention was assessed via both quantitative and qualitative approaches. The design of the study is presented below in Figure 3.1 in which the process of pre-test, randomisation, and post-test are specified.

Figure 3.1

Randomised with Wait-listed Control Group Design of this Study

Recruitment & Pre-Test	Randomisation	1st Phase Intervention (Duration: 8 weeks)	Post-Test	2nd phase Intervention (Duration: 8 weeks)
N = 100 mother-child dyads	Intervention Groups (5X10=50)	Receiving intervention	Both groups	No intervention
	Wait-list Control Groups (5X10=50)	No intervention (Waiting period)		Receiving intervention

Established measures were used as part of the quantitative component of this research. These instruments comprised the Parenting Sense of Competence (PSOC), the Parenting and Family Adjustment Scale (PAFAS)-Parenting, and the Infant-Toddler version of the Home Observation for the Measurement of the Environment (IT-HOME). Additionally, a six-item Observational Rating Scale (ORS) was developed for this study. The ORS was assessed by a 12-minute video recording of mother-child joint play. All quantitative measures were used in both pre and post-test. The pre-test phase occurred for all participants prior to randomisation. Post-testing occurred approximately 8 weeks later, by which time the intervention groups had completed the intervention, but the control groups had not yet commenced their part. In addition, an observational measure was completed during each intervention session by one

research assistant (RA) who kept notes about the mothers' level of interest and participation in the session.

In the qualitative component, this study used observations and interviews. Mother-child interactions were observed for a 12-minute joint play time in the home setting during the pre-test and post-test phases (also used for quantitative ORS as mentioned in the above paragraph). An observation of the quality of mothers' caregiving was recorded during the intervention. Semi-structured interviews explored how mothers described their children along with their strengths and weaknesses in the pre and post intervention periods. Another short interview was conducted on the mothers' experience of the intervention in the post-test phase only. Daily session feedbacks were also taken from the mothers. The details of the participants and setting of the study are discussed in the next section.

3.2 SETTING AND PARTICIPANTS

This section first describes the non-government organisation through which the researcher recruited participants and conducted data collection. Then, the description of the study's setting and participants are detailed.

3.2.1 *Selection of a Gatekeeper for the Study*

The proposed project was conducted in a disadvantaged area of Dhaka city, the capital of Bangladesh. As the city is divided into two parts, the target area was purposively and conveniently selected from the Dhaka South City Corporation through a non-government organisation (NGO) named "INCIDIN Bangladesh". The acronym of INCIDIN stands for Integrated Community and Industrial Development Initiative in Bangladesh. Its mission is to enable the overall development of the community in a sustainable way by focusing on underprivileged children, slum dwellers, and rural development (https://www.devex.com/organizations/incidin-bangladesh-20900). This NGO acted as a "gatekeeper" for this study by recruiting the target participants and providing a suitable space and facilities for the intervention program. More specifically, the researcher contacted prospective families via the NGO's field workers who visited the slum area to work with children and their mothers. A similar procedure was used by the researcher during her Master of Philosophy degree study when an NGO helped her to recruit participants (Ferdowshi, 2014; Ferdowshi & Pervin, 2019).

The rationale for choosing this organisation was that it serves underprivileged people living in the slums and the NGO's working area was accessible for the researcher. The NGO gave their consent for using its space and facilities over the phone as well as via electronic mail. A full-time member of the NGO's field staff helped to identify the possible participants, prepared a participants' list, and went for special field visits just before starting every intervention session so that the maximum number of participants could attend the sessions.

Under several working areas of this NGO, Dhalpur slum was selected for the current study based on the NGO's enthusiasm for the purposes of the research. The researcher selected a single area to avoid ecological variation. In addition, the heavy traffic of Dhaka city would have made it more difficult and time consuming for the researcher and data collectors to reach two slum areas within the study period. Data collection commenced on 19 January 2019 and ended on 5 May 2019. A specific description of the Dhalpur slum area and reasons for choosing this as the study site are given below.

3.2.2 *Location of the Study*

The Dhalpur slum area is located in the south-eastern part of Dhaka city under the Dhaka South City Corporation. The total population of this area is 16,981 with 4,431 households (14.3%) (Ministry of Local Government, Rural Development, and Co-operatives, 2017). This slum area is composed of various clusters or Out Falls, such as: 1 no. City Palli, Rahman's Bastee, Aynul's Bastee, 14 no. Out Fall, Nabur Bastee, Kazi Para, and Telegu community. The areas were named after the landowners who settled there many years ago (Rahman, 2001). About 12% of children aged 6 to 14 years in Dhalpur have not had any schooling while 88% have completed at least one year of schooling. Children in this area are often involved in income-generating activities and assist their parents to maintain their livelihood (Ministry of Local Government, Rural Development, and Co-operatives, 2017). INCIDIN Bangladesh has been working in the Dhalpur slum area to improve the slum dwellers' living conditions. This slum was chosen for data collection for the availability of participants, lower levels of violence in this area compared to that in other Dhaka slums, easy accessibility for the researcher in terms of getting permission from the relevant authorities, and the convenience of a short commute. During data collection, the researcher was able to recruit a sufficient number of participants from seven clusters of this single slum area. The following sub-section details the recruitment process of the participants.

3.2.3 *Selection of Participants*

The researcher proactively canvassed possible participants in accordance with inclusion and exclusion criteria of this research. All potential participants and their families were verbally informed door-to-door about the research purposes, its benefits, risks, and ethical issues. The researcher prepared a list of participants who initially gave verbal consent for research participation including their address and/or contact number. The inclusion and exclusion criteria for selecting participants and the participants' recruitment process are discussed hereunder.

The inclusion criteria for the participants were:

i) mothers of typically developing children from one to three years of age,
ii) mothers who mostly stayed at home to take care of children, and
iii) mothers who had no prior experience of attending any parenting intervention program.

In cases where mothers had more than one child within the target age group, the mothers were asked to choose the child who was the closest to age three. The researcher did not find any mother who had two children within one to three years of age. The rationale for the second inclusion criterion was that, in context of Bangladesh, mothers are the primary caregivers. Thus, mothers mostly stayed at home and were free to attend the intervention during the day. The researcher included the third criterion in order to evaluate the impact of the International Child Development Program (ICDP) on the mothers. All the recruited mothers (N=100) were selected based on these inclusion criteria.

On the other hand, participants were excluded if they were i) pregnant; ii) involved in illegal activities for example, drug dealing, or have a previous record of criminal activity; and iii) having children with disabilities or any other chronic medical disease. These three criteria were selected mainly to decrease the probability of mothers dropping out. The presence of pregnancy, disability or other chronic diseases were identified by the researcher. However, those engaging in illegal activities were identified by the local NGO workers who had dealt with the families for a long time. In this study, one mother of a child with cerebral palsy was identified at the time of intervention session. The researcher advised her about the specific exclusion criterion of this research. However, the mother was very much interested in

participating in the sessions. Despite the exclusion criterion, the researcher kept this mother in the final analysis as she completed all eight sessions and was regular in attendance.

Formal recruitment of the participants commenced immediately after ethical approval was received. The written consent of the participants was collected on the days of pre-data collection. The participants and their family were given the research information sheet along with a consent form (see Section 3.6 and Appendix J and K, respectively). As the mothers and families were mostly illiterate (some can read short paragraphs by spelling individual words and/or some can only sign their names), the data collectors read aloud the research information and consent papers to the mothers and fathers or other family members. The research information sheet was prepared using relevant illustrations for better understanding by the underprivileged families. This project also involved very young children, aged one to three years old, who were unable to give voluntary consent to participate. Children's involvement here was only for observational purposes in order to see the mothers' quality of interaction with their children. The mothers, fathers or other family members gave consent on behalf of the children. Only mothers signed the consent form as they gave assurance about their research participation. Based on the prepared participants' list and availability of the participants on the day of pre-test data collection, a total of 100 mother-child dyads were selected from the Dhalpur slum area. The number of participants allowed for a possible 25% attrition rate. Sub-section 3.2.4 discusses how participants were retained for the final analysis.

3.2.4 *Participant Retention for Final Analysis*

A total of 92 participants (out of 100) who had both pre- and post-test data were retained in the study. Data for eight families could not be collected at post-test due to their unavailability at the slum homes during the data collection period. The reasons for the unavailability include visits to rural areas (n=5) and unwillingness to provide data a second time (n=3). From the 92 families with complete data, 10 intervention group mothers were excluded for the final analysis as they did not attend at least six sessions in total.

In cases where participants of intervention groups were absent for a session, the researcher used two strategies for updating them (the researcher did not make up the missed sessions for the WLC mothers). One strategy was that the researcher placed the mothers in a regular group session for the session they had missed. For example, a mother from group 1

had missed session no. 2. The researcher then had encouraged that mother to join any one of four groups for attending the same session. The second strategy was to run a brief special session with the mothers from group 1 to group 5 who missed the same session. By considering the earlier example, the researcher provided 30-40 minutes extra time for 3-4 mothers (missed session no. 2) before starting the regular session # 3. If the mothers had sufficient time and interest, then the researcher allowed them to attend regular session 3. However, the condition of attending session 3 for the special session mothers was having enough space for that regular session.

Therefore, 13 intervention mothers participated in the special sessions for this study. Among them, four mothers (code no. 42, 50, 59 and 125) attended the special session for 1st session, two (26 and 47) attended the 2nd session, three (06, 33, and 62) attended the 3rd session, two mothers (05 and 53) the 4th session, and three (50, 84, and 107) the 7th session. Thus, participants who did not attend at least six sessions in total, were excluded from the study analysis. In order to reach the target number of participants, the researcher recruited 25% extra participants to allow for attrition. Finally, 82 mothers (37 intervention and 45 WLC) were included for the final study analysis. The next sub-section details the demographics of the selected participants.

3.2.5 *Participant Characteristics*

The above sub-section has already stated the process of participant retention for this study. A total of 82 mothers (out of 100) were finally included for the study analyses. Forty-five percent were intervention group mothers (n=37) and 55% were WLC mothers (n=45). There were no significant differences in parent or child characteristics between the intervention and the WLC groups. Table 3.1 presents the demographic data of the two groups.

In the intervention group, the mean age of the mothers was 23.8 years (SD=5.125) ranging from 18 years to 35 years, the mean age of the fathers was 30 years (SD=5.525) ranging from 22 years to 42 years, and the mean age of the target child was 2.1 years (SD=.844) ranging from 1 to 3 years.

In the WLC group, the mothers' age was ranging from 16 to 35 years and their mean age was 23.5 years (SD= 4.556). The mean age of the fathers was 30.2 years (SD=6.945) ranging from 20 to 50 years. In addition, the target child's age was varied from one to three years and the

mean age was 1.9 years (SD=.630). None of the 82 mothers had prior experience of attending any parenting related intervention.

Table 3.1

Differences in Demographics between Intervention and Wait-Listed Groups

Demographics	Intervention Groups (n=37)		WLC Groups (n=45)		Significance	
	n	*(%)*	*n*	*(%)*	χ^2	*p*
Mothers' Birth Place						
Urban	16	19.5	**28**	34.1	2.941	.086
Rural	**21**	25.6	17	20.7		
Education						
Illiterate	4	4.9	4	4.9		
Below Primary	9	11.0	7	8.5		
Primary (grade 5)	8	9.8	8	9.8	3.762	.439
Secondary(6 to 10)	**16**	19.5	**23**	28.0		
Higher Secondary(12)	0	0	3	3.7		
Occupation						
Housewife	**31**	37.8	**41**	50.0		
Business	1	1.2	2	2.4		
Maid-servant	3	3.37	2	2.4	3.172	.529
Day labour	1	1.1	0	0		
Cleaner	1	1.2	0	0		
Marital Status						
Married	37	45.1	44	53.7	.832	.362
Separated	0	0	1	1.2		
Total Children						
One	**18**	22.0	**21**	25.6		
Two	8	9.8	13	15.9		
Three	9	11.0	5	6.1	5.032	.284
Four	2	2.4	3	3.7		
Five	0	0	3	3.7		
Child's Gender						
Male	17	20.7	**23**	28.0	.217	.641
Female	**20**	24.4	22	26.8		
Father's Education						
Illiterate	11	13.4	13	15.9		
Below Primary	5	6.1	2	2.4		
Primary	6	7.3	6	7.3	6.185	.289
Secondary	**12**	14.6	**21**	25.6		
Higher Secondary	3	3.7	1	1.2		
Higher Education	0	0	2	2.4		
Occupation						
Driver	12	14.6	10	12.2		
Business	2	2.4	6	7.3	2.439	.486
Day Labour	2	2.4	4	4.9		
Cleaner	**21**	25.6	**25**	30.5		
Family Monthly Income						
BDT 5000-10,000	**21**	25.6	**25**	30.5		
BDT 10,001-15,000	13	15.9	8	9.8	6.486	.090
BDT 15,001-20,000	2	2.4	10	12.2		
BDT 20,001-35,000	**1**	1.2	**2**	2.4		
Religion						
Islam	**33**	40.2	**39**	47.6		
Hindu	4	4.9	3	3.7	2.890	.236
Christian	0	0	3	3.7		
Total Members						
3-5	**22**	26.8	**27**	32.9		

6-8	10	12.2	16	19.5	2.423	.298
9-13	5	6.1	2	2.4		
Family Type						
Nuclear	**20**	24.4	**26**	31.7	.114	.735
Joint	17	20.7	19	23.2		

As table 3.1 shows 38 mothers (21=intervention and 17=WLC) were originally from rural areas compared to 44 mothers (16=intervention and 28=WLC) who were raised in urban slums. With respect to educational background, the higher number of parents of both intervention and WLC groups had completed secondary schooling. The illiteracy rates of both groups of mothers were the same (4.9%) whereas there was a small difference between the intervention (13.4%) and the WLC (15.9%) fathers. In terms of occupation categories, the highest frequency of mothers (31 for intervention and 41 for WLC) were "housewives" whereas the fathers were mostly occupied as "cleaners" (21 for intervention and 25 for WLC). The total number of children per family ranged from one to five. The majority of the intervention and WLC mothers had only one child, that is, 18 and 21, respectively. Fifty-one percent of the target children were female. With respect to monthly family income, the majority of families (46 in total) had a monthly income in the range of BDT 5000 to 10,000 whereas only three families' income was more than BDT 20,000. The families were mostly "nuclear" with 3 to 5 family members in both the intervention and WLC groups. Finally, the most dominant religion of this slum area was Islam (72 in total) and the least common was Christian (3 only in WLC).

3.3 PARENTING INTERVENTION: INTERNATIONAL CHILD DEVELOPMENT PROGRAM (ICDP)

The International Child Development Program (ICDP) primarily focuses on emotional, meaning, and regulative interaction between mothers and children through its eight themes of positive interaction. The ICDP aims to build parent confidence, enhance parents' responsiveness and positive perceptions of the child (Hundeide, 2010; Rye, 2001). As evidence suggests, effective and successful interventions are characterised by high parental responsiveness with moderate to low directiveness (Mahoney et. al., 1998; Mahoney & Wiggers, 2007). The ICDP's main focus is sensitising caregivers' responsiveness by activating local parenting practices without instructing them, which is also another

characteristic of effective intervention (Mahoney et al., 1998). Thus, mothers' interactive qualities support development and well-being of the children.

By implementing the ICDP, this study aimed to change the following constructs in mother-child dyads:

i) Maternal responsiveness. A change in maternal sensitivity or responsiveness occurs by improving emotional and mediational (meaning and regulative dialogues) interaction between mothers and children. Studies have shown that change in these areas have positive outcomes in parenting strategies (Sherr, Skar, Clucas, von Tetzchner, & Hundeide, 2014; Skar, von Tetzchner, Clucas, & Sherr, 2015) and parenting behaviour (Skar, Sherr, Clucas, & von Tetzchner, 2014) for improving mother-child interaction, which in turn fosters early child development (Guralnick, 2006; Rogoff, 2003).

ii) Maternal sense of competence. Parenting sense of competence is associated with mothers' perceptions about their children and the nature of mother-child interaction. This changed outcome of parental competence would increase the mothers' sense of self-worth which in turn leads to more positive child rearing practices. Quality child caring fosters exploration of more stimulating physical environment for the child (Abarashi, 2014; Doh et al., 2016; Mihelic et al., 2017; Wittkowski et al., 2017). Research has also shown a relationship between how the child is perceived by the caregivers and the type of care the child is given (Harkness, 1992) in turn affects the parental competencies.

iii) Mothers' parenting practices. It has been found that underprivileged parents rarely use praise and are more prone to use coercive behaviour to manage their children which has a detrimental effect on consistent parenting and parent-child relationship (Hamadani & Tofail, 2014). Coercive behaviour management is likely to improve the parent-child relationship which is an essential parameter of positive parenting (Skar, Sherr, Clucas, & von Tetzchner, 2014). Positive parenting practice leads to healthy development of the child (Huber, McMahon, & Sweeler, 2015; Sanders, 2012; Væver, Smith-Nielsen, & Lange, 2016).

The ICDP is based on five elements, i) caregivers' conception of the child; ii) eight guidelines of positive interaction and the three dialogues; iii) seven principles of sensitisation; iv) principles of implementation; and v) applications.

The three dialogues, the eight themes, and the seven sensitisation principles are presented in Table 3.2 (Ferdowshi, 2014; Hundeide, 2010; Rye, 2001, 2005). The eight themes of the ICDP are divided into three unique dialogues, namely: Emotional, meaning, and regulative. The emotional dialogue deals with directing the emotional development of the child through the loving expressions of parents and creating a safe and comfortable relationship in mother-child dyads. This dialogue is expressed through the 1st to 4th themes of the ICDP. These include demonstrating positive feelings, adapting to the child, talking to the child, and giving praise and acknowledgment. Next, the meaning dialogue considers the cognitive development of the child by understanding the surroundings and comprises the 5th to 7th themes of the ICDP such as helping to focus the child's attention, giving meaning to the child's experiences, and elaborating and explaining shared events. The last dialogue is the regulative one which addresses the moral and value-based behaviour by achieving self-control and discipline. This dialogue reflects the last theme of the ICDP that is, helping the child to learn self-control.

The implementation of the ICDP usually consists of 5 –10 caregivers attending eight two-hour sessions weekly, one meeting for each guideline. The responsibilities of caregivers are taking an active role, participating in role play and group discussions, sharing own experiences, and doing home assignments. The facilitator establishes a trusting relationship, gives positive comments, encourages active involvement and facilitates discussions. Each group of this study consisted of 10 mothers who attended eight group sessions for two hours.

Table 3.2

The Three Dialogues, Eight Guiding Themes and Seven Sensitisation Principles

Three Dialogues	Eight Guiding Themes	Seven Sensitisation Principles
The Emotional Dialogue	1. Demonstrate positive feelings 2. Adapt to the child 3. Talk to the Child 4. Give praise and acknowledgement	1. Establish close & trusting relationship with caregivers 2. Promote positive conception of the child 3. Change practices of caregivers through self-initiated activities
The Meaning Oriented and Expansive Dialogue	5. Help the child focus attention 6. Give meaning to the child's experiences 7. Elaborate and explain the	4. Point out caregivers' existing positive skills 5. Use eight themes through home exercises 6. Share experience and examples by

	shared event	group participation
The Regulative Dialogue	8. Help the child to learn self-control	7. Speak about child in personalized and interpretative ways

Note. Adapted from Ferdowshi, 2014, p. 20.

A brief description of the eight themes of positive interaction are:

1. Mother "demonstrates positive feelings" for the child while interacting in various situations by demonstrating her care, affection, and love. Perceiving the child as a respected and unique person with his or her individual needs, wishes, temperament, skills bears important consideration during mother-child interaction.

2. Mother "adapts to the child" in accordance with child's initiatives, interests, and needs while communicating to the child. In this case, the mother also adapts her tone of voice, facial expressions, and communication style according to the respective child.

3. Mother "talks to (with) the child" in everyday activities by making intimate dialogues with child and by reciprocal exchange of thoughts, words, and feelings.

4. Mother "gives praise and acknowledgement to the child" when the child acts appropriately, follows mother's instruction, and accomplishes the given tasks. Giving praise and recognition for what the child accomplishes are grounded as important for the development of the child's self-confidence and initiatives.

5. Mother "helps the child to focus his attention" by creating joint attention, that is a prerequisite for communication and an expression of shared intentionality. Mother-child's joint attention is a product of being attracted to the desired object and directing attention to that object gradually.

6. Mother "gives meaning to the child's experience" by describing, naming, and demonstrating feelings for the shared experience which is helpful for the child to remember as being important and meaningful.

7. Mother "elaborates and explains by telling stories, by asking questions about the shared events to the child" which develops child's understanding about the world.

8. Mother "helps the child to achieve self-regulation" by setting limits in a positive way. Through guidance and demonstrating positive alternatives, mother helps child to be independent and prepares for step-by-step planning activities.

An intervention module of the ICDP was adapted and piloted for the participants of this study through the above-mentioned eight themes of positive interaction (see 3.5.2). The seven sensitisation principles were also essential for building rapport with participants and training them how to sensitise towards their children. A brief module structure is attached in Appendix A in a tabular form.

From the critical review of the ICDP evaluation studies in sub-section 2.2.3, the intervention has demonstrated improvements in parenting constructs (that is, activity with the child, parenting strategies, positive discipline, and engagement with the child), parental confidence, self-efficacy, self-esteem, and parental mental health. For this doctoral study, the researcher measured the constructs, such as parenting sense of competence, parenting practices, and parenting sensitivity.

3.3.1 *Theoretical Background of the International Child Development Program*

The ICDP is underpinned by three theoretical perspectives: Attachment theory, mediated learning theory, and cultural-historical theory. The foundation of the ICDP is based on John Bowlby's attachment theory that encapsulates the impact of the caregiver-child's initial attachment formation on subsequent emotional, social, and cognitive development of the child. The term "attachment" is defined as a "*psychological connectedness between two human beings*" (Misca & Smith, 2014, p. 152). Attachment theory focuses on the infant's innate communication abilities through which he or she can create an attachment with caregivers who would be considered as his or her "secure base" for exploration and self-enhancement (Fonagy & Target, 2003). In line with this, it can be considered that parent-infant attachments are reciprocal relationships in which infants become attached to parents and parents become attached to infants (Bowlby, 1969). Three key aspects define the attachment: Proximity seeking to a preferred figure, the "secure base" effect, and separation protest (Weiss, 1982 in Holmes, 2014). Research reveals that a secure attachment is followed by positive development whereas insecure attachment has developmental risks for children. Prior observational studies note that parental attachment insecurity is associated with less sensitive and responsive parental behaviour, missing the child's signals and interfering with exploration (Mills-Koonce et al., 2011; Selcuk et al., 2010; Jones & Cassidy, 2014).

The themes of the ICDP are also grounded on Feuerstein's mediated learning experience (MLE) theory (Feuerstein, Rand, & Hoffman, 1979). The MLE is conceptualised as "*a quality of interaction between the organism and its environment. This quality is ensured by the interposition of an initiated intentional human being who mediates the stimuli impinging on the organism*" (Feuerstein & Feuerstein, 1991, p.7). This definition states the connection between the stimuli (S), mediator (H), mediatee (O), and responses (R). This interaction devised the process of S-H-O-H-R. It stated how a caregiver as a mediator helps a child to connect with his environment (Ferdowshi, 2016; Feuerstein et al., 1980; Feuerstein & Feuerstein, 1991). This theory is relevant to the proposed study as its root concepts and parameters are concerned with quality interactions between mothers and children to improve their relationship and promote psychosocial development.

The ICDP's essence also relies on mother-child interaction or communication. Therefore, Vygotsky's cultural-historical theory is relevant. Here, the focus is on the development of higher mental processes that is, thinking, reasoning, problem-solving, mediated memory, and language. This theory describes how these higher psychological functions are developed in the child's social context through the mediation of signs, symbols, language system, adults, and so on. Another important contribution of this theory is "the zone of proximal development" (ZPD), the gap between the child's actual level of competencies and the child's potential. According to this theoretical perspective, children learn both socially (interpersonal level) and individually (intrapersonal level). The process of bridging the gap between the interpersonal and intrapersonal level is called "internalisation" through which the child's learning takes place. Another important concept of cultural-historical theory is "scaffolding" that is a structured and systematic assistance between the child and more knowledgeable adult to progress the child's development. Scaffolding can be used as parental interaction through which parents can participate and provide support for the child's learning and development (Rogoff, 1990). Parental scaffolding related findings reveal that parents who are less disadvantaged use more scaffolding behaviours in response to their child's performance (Mermelshtine, 2017). Cultural-historical theory is relevant to the proposed study due to the focus on enhancing mother-child positive interactions. For reaching the child's potential, a mother acts as a mediator who can challenge the child through socially constructing understanding (Christie & Doehlie, 2011; Vygotsky, 1978).

3.4 INSTRUMENTS

The researcher used the following measurement tools along with a demographic questionnaire to obtain details of participants' age, number of children, educational background, and occupation alongside spouses' education, occupation, and income level (Appendix B).

3.4.1 *Parenting Sense of Competence (PSOC) Scale*

The Parenting Sense of Competence Scale (PSOC) has been widely used and translated into many languages. It is a 17-item measure of parental self-efficacy and satisfaction with parenting (Gibaud-Wallston & Wandersman, 1978). This measure was originally designed for parents of young infants (mean age: 11 weeks of age; Karp et al., 2015). The PSOC was subsequently evaluated in a sample of parents with pre-school or school-aged children, ranging from 4 to 9 years old (Johnston & Mash, 1989). Most evaluations of this measure were for parents with children of 5 to 12 years of age (Wittkowski et al., 2017). The Efficacy sub-scale of the PSOC consists of eight items (1, 6, 7, 10, 11, 13, 15, and 17). Some examples of the Efficacy sub-scale are "the problems of taking care of a child are easy to solve once you know how your actions affect your child, an understanding I have acquired" (item # 1); "being a parent is manageable, and any problems are easily solved" (item # 7); and "considering how long I've been a mother; I feel thoroughly familiar with this role" (item #13). The Satisfaction subscale consists of nine items (2, 3, 4, 5, 8, 9, 12, 14, and 16). Some of the Satisfaction items are "my mother was better prepared to be a good mother than I am" (item# 5); "sometimes I feel like I'm not getting anything done" (item# 9); and "being a parent makes me tense and anxious" (item# 16). Respondents indicate their level of agreement with an item on a six-point Likert scale ranging from strongly disagree (1) to strongly agree (6). Nine items (2, 3, 4, 5, 8, 9, 12, 14, and 16) are reverse scored so that high scores indicate higher sense of competence and satisfaction in parenting.

The PSOC has shown high levels of reliability over time. Correlations between administrations ranged from .46 to .82. Item analysis revealed high internal consistency with alpha coefficients of .82 for the Efficacy subscale, .70 for the Satisfaction subscale and .83 for the total scale (Gibaud-Wallston & Wandersman, 1978). This scale has been used in Hong Kong with 170 mothers (Ngai et al., 2007) in which Cronbach's alpha was .85 for the total scale and .80 and .77 respectively for the subscales measuring Efficacy and Satisfaction. The

construct validity of the Chinese version of the PSOC was found to be positively correlated with Rosenberg's Self-Esteem Scale (r = .60, $p < .01$) and negatively correlated with the Edinburgh Postnatal Depression Scale (r = -.48, $p < .01$). The PSOC was also used in a Portuguese study with 146 mothers in which Cronbach's alpha was .69 for the Efficacy and .65 for the Satisfaction sub-scales (Nunes et al., 2016).

The PSOC was used in this study as the ICDP intervention was expected to influence mothers' parenting self-efficacy and satisfaction. Previous ICDP evaluation studies have demonstrated an improvement in parenting self-efficacy that in turn increased positive parenting behaviour, decreased coercive practices, enhanced mother-child relationships, improved child behaviour, and improved child management (Clucas et al., 2014; Skar et al., 2015).

The advantages of this scale were that it has been widely used, entails a small number of items (17-item), and is relatively time saving to administer. This questionnaire had previously been translated into Bangla in 2011. A potential disadvantage of that Bangla translated scale is that the Bangla wording of items may be too difficult for the disadvantaged population to be targeted in the current study. Therefore, the Bangla version was translated again to simplify the complex language and the revised measure was piloted as discussed in detail in sub-section 3.5.1. The original and final Bangla versions of the PSOC are attached in Appendix C.

3.4.2 *Parenting and Family Adjustment Scale (PAFAS)-Parenting*

The PAFAS is a relatively new tool that has been translated into several languages, that is, English, Spanish, Indonesian, and Chinese. It was initially developed by Sanders and Morawska in 2010 with 40 items for parents of children aged 2 to 12 years old. This scale was revised and subjected to rigorous psychometric evaluation by Sanders, Morawska, Haslam, Filus and Fletcher in 2014. The revised version of the PAFAS is a 30-item measure with two sub-scales: Parenting Scale (18-item) and Family Adjustment Scale (12-item). This study only used the Parenting Scale of the PAFAS.

The 18-item PAFAS-Parenting Scale assesses four domains of parenting. The Parental Consistency domain consists of five items (1, 3, 4, 11, and 12). An example item is "I follow through with a consequence (take away the toy) when my child misbehaves". The Coercive Parenting domain consists of five items (5, 7, 9, 10, and 13). An example item is, "I shout or get angry with my child". The Positive Encouragement domain includes three items (2, 6, and 8). For example, "I praise my child when they behave well". Finally, the Parent–Child Relationship domain consists of five items (14, 15, 16, 17, and 18). For example, "I have a good relationship with my child". Each item is rated on a 4-point scale from not true of me at all (0) to true of me very much (3). In the PAFAS Parenting scale, ten items (2, 3, 6, 8, 11, 14, 15, 16, 17, & 18) are reverse scored. For each subscale of the PAFAS Parenting the items are summed to provide scores, with higher scores indicating higher levels of dysfunction.

The internal consistencies (coefficient *H*) of the English version of PAFAS-Parenting were satisfactory: 0.70 (Parental Consistency), 0.78 (Coercive Parenting), 0.75 (Positive Encouragement), and 0.85 (Parent–Child Relationship) (Sanders et al., 2014). In a comparative study of Indonesia and Australia, the internal consistency for the Parenting Practice Scale (such as Parental Consistency, Coercive Parenting, Positive Encouragement, and Parent-Child Relationship) was .65 (Sumargi et al., 2015). Moreover, a Spanish study also showed satisfactory internal consistency of .65 for Parental Consistency, .77 for Coercive Parenting, .68 for Positive Encouragement, and .91 for Parent-Child Relationship (Mejia et al., 2015). This PAFAS Parenting Scale was also adapted and validated with 650 Chinese parents. The *H* coefficients of the measure were .50 for Parental Consistency, .70 for Coercive Parenting, .75 for Positive Encouragement, and .82 for Parent-Child Relationship (Guo et al., 2017). Though the internal consistency of Parental Consistency had relatively low reliability, the overall reliability of the PAFAS-Parenting was satisfactory in the Chinese context. The PAFAS Parenting scale was translated into Bangla for this study on a pilot basis that is described in sub-section 3.5.1.

The PAFAS-Parenting was used in this study as the ICDP intervention was expected to influence mothers' parenting practices. Previous ICDP studies also used parenting behaviour, parenting strategy and positive parenting discipline as constructs that showed improvement through the ICDP implementation. Such improvements of parenting practices would influence the child's outcome in terms of mothers' effective engagement with the child, activity with the child, less use of coercive parenting leading to better mother-child

interaction, improved mothers' sensitivity towards her child's needs, and an improved mother-child relationship.

The advantages of the PAFAS-Parenting subscale were (i) its brief number of items (18) that assess a range of key variables of known risk and protective factors for parenting outcomes; and (ii) the 4-point response options with given examples that make the scale easier to comprehend and administer within a short period of time. The original and Bangla translated versions use simple language. Therefore, there was no need to simplify the language as the researcher did for the Bangla PSOC scale. The original and Bangla versions of the PAFAS- Parenting are included in Appendix D.

3.4.3 *Infant-Toddler version of the Home Observation for the Measurement of the Environment (IT-HOME)*

The HOME Inventory has been used in Europe, North America, South America, Asia, Africa, and Australia. It was developed by Caldwell and Bradley in 1984. It assesses the quality and quantity of stimulation and support available to a child in the home environment. Both interaction and the physical environment are assessed. Several versions of the HOME are available, that is, Infant/Toddler (IT) HOME for children birth to 3, Early Childhood (EC) HOME for children aged 3 to 6, and Middle Childhood (MC) HOME for children aged 6 to 10 years of age. The researcher used the IT version of the HOME for this study.

The original IT-HOME consists of 45 binary choice items clustered into six subscales: Responsivity, Acceptance, Organisation, Learning Materials, Involvement, and Variety. Reliability of the total scale score was $\alpha = 0.75$ (Caldwell, & Bradley, 1984). From a cross-cultural study in a European setting, the internal consistency of IT-HOME was measured by Cronbach's alpha (α) that was 0.86 (Gunning et al., 2004).

This instrument has already been widely used in the Bangladeshi context for measuring the effectiveness of psychosocial parenting interventions (Aboud & Akhter, 2011). Modifications were made for use in Bangladesh (Hamadani et al., 2001, 2002; Nahar et al., 2012; Tofail et al., 2006). Though the intent of the questions was same, the changes were made to increase variability in the study population. For example, a question of the modified HOME asked whether there was a book for the adults at home rather than ten books (Hamadani et al., 2002).

The Bangla modified version of the inventory contains 54 items and six sub-scales: i) organisation of the physical and temporal environment ii) stimulation (opportunities for variations in daily stimulation at home) iii) maternal involvement with the child iv) play materials v) avoidance of restriction and punishment and vi) emotional and verbal responsivity of the mother. This inventory is obtained by a combination of observation and semi-structured interview. It requires about an hour to administer and is done in the home when the child and the child's primary caregiver are present, and the child is awake. The total score is calculated by summing up all positive responses. The highest possible score is 54. Scores of 50% and above indicate a positive home environment, stimulation, maternal involvement, play materials, less coercive parenting, and more emotional and verbal responsivity of the mothers.

The strength of this tool was its combination of mother-child observation and semi-structured interview of mothers through which the researcher could gather baseline data of interaction and mothers' attitude toward interventions. This instrument required a short training on how it was to be administered and how its scoring worked. As the International Centre for Diarrhoeal Disease Research, Bangladesh (icddr, b) used this tool for their parenting research, they provided two half day training sessions for the researcher on how to administer and score. The original and Bangla versions of the scale are attached in Appendix E.

3.4.4 *Observational Measures*

Observation is one of the key tools for collecting data in both quantitative and qualitative approaches. An observational rating scale (ORS) was developed for this study as a quantitative measure. The observation schedule consists of 6 items of which three items focus on "emotional dialogues" of the ICDP intervention and the other three items focus on "mediated interaction" in combination of meaning and regulative dialogues of the ICDP intervention. The scoring options ranged from 1= "very low" to 5= "very high". The higher scores indicate positive mother-child interaction. These items were derived from a review of rating scales used to assess parent-child interactions in early intervention programs along with focusing on the ICDP's eight themes (Armstrong, 2010; Hundeide, 2010; Kochanska &

Murray, 2000; Mahoney et al., 1998; Williams, 2010). Thus, changes in the observation rating scales were expected to reflect the effectiveness of the intervention program.

In this study, mother-child interactions were video-taped at two points in time (pre- and post-test) for both intervention and wait-list control groups at their home settings. In each mother-child dyad, a total of two observation sessions were conducted for 12 minutes each during joint play time. Of the 12-minute video recordings, the first two and last two minutes were discarded with only the middle eight minutes used in analyses in order to decrease the "Hawthorn effect", that is, potential higher reactivity of the participants (Elder, 1999). Observation sessions were recorded after completing all other measures so that the participants were used to the data collectors and could be expected to engage in natural interaction (Haidet et al., 2009).

Video-recordings for this study were important because, as explained later in sub-section 3.5.3, the main researcher could not be present at the participants' homes during data collection. Twenty percent of the observation videos were analysed by a second coder in order to assess the inter-rater reliability of the ORS. The ability to pause and replay the video-recordings gives an opportunity for the coders to understand the real-time interaction between mothers and children (Haidet et al., 2009). In this study, data collectors were non-participant observers, that is they watched and recorded in a natural setting and took field notes as much as possible (Creswell, 2013). The ORS data were analysed quantitatively. This is discussed in Section 4.1. The observation schedule is attached in Appendix F. Transcripts of the 12 minute joint play video were also analysed qualitatively in order to investigate the differences of pre- to post mother-child interaction between intervention and control group mothers.

In addition, a second observation measure was used to collect both quantitative (rating scale) and qualitative data (Armstrong, 2010). This assessment was conducted by an observer (RA) of the intervention session based on her detailed note-keeping of the sessions. It consists of two items with 5-point Likert type scoring options that ranged from 1= "very low" to 5= "very high". Mothers' "interest in the training" and "how active was mother during training" are the items of this ORS. Higher scores indicate higher levels of interest and active participation during training. The reason for using this ORS was to ensure the fidelity of the intervention. Fidelity is discussed in sub-section 3.5.9. The qualitative data collected by this

observational measure was focused on the mothers' caregiving qualities. This observation measure is attached in Appendix G.

3.4.5 *Interview Guidelines*

Three short semi-structured interview guides were used. One interview guide measured the mothers' conception of the child (Armstrong, 2010; Hundeide, 2010). Another guide measured the program's overall feedback by asking about the most important content of the intervention, what participants found helpful, what changes they experienced in their parenting practice, and what difficulties they faced during intervention (Williams, 2010). The third interview assessed the daily intervention session by asking about learning from the session, most liked aspects, difficulty, and improvement of the intervention (Armstrong, 2010).

Interview guides were developed by reviewing the related literature of the ICDP and questionnaires relevant to intervention evaluation. All mothers were interviewed about their conception of children for this study. The interview relating to overall feedback of the intervention was conducted only with intervention group mothers in the post-test period. Interviews were audio-recorded. Daily session feedback was not audio-recorded and was conducted with both groups of mothers during each session. Interview as a data collection method has advantages and disadvantages. The major advantage is the adaptability of the interview to follow respondents' answers to obtain more information and to clarify any vague statements (Gall, Gall, & Borg, 2007). Three interview guides are attached in Appendix H (a-c). A summary of all instruments is provided in Table 3.3 on next page.

Table 3.3

Summary of Instruments Used in this Study

Measures	Item, type & subscales	Changes in study	Respondent	Method	Time	Rationale
PSOC	17-item, 6-point Likert scale, 2 subscales: Efficacy & Satisfaction	Mothers' sense of competency	Mothers (n=82)	Quantitative (self-report)	Pre-Post	Both efficacy & satisfaction function as moderators of parent-child relationships
PAFAS-Parenting	18-item, 4-point Likert scale; 4 sub-scales: Parental Consistency, Coercive Parenting, Positive Encouragement, & Parent-Child Relationship	Parenting practices	Mothers (n=82)	Quantitative (self-report)	Pre-Post	These four domains of parenting are moderators of positive mother-child interaction; most items are directly relevant to the intervention program
IT-HOME-Bangla modified version	54-item, binary choice; 6 sub-scales: i) Physical & Temporal Environment, ii) Stimulation, iii) Play Materials; iv) Avoidance of Restriction & Punishment; v) Maternal Involvement; vi) Emotional & Verbal Responsivity of Mother	Mothers' competency for child's home stimulation; Parenting (Coercive); Mediated interaction Emotional interaction	Mothers & Children (n=82)	Quantitative (self-report & mother-child observation)	Pre-Post	IT-HOME are relevant with this study intervention that indicates emotional and mediational interaction of mother-child dyads; helps to understand the home situation of the families; poor maternal involvement may have impact on the mothers' competency level
Observations: 1. Mother-child positive interaction	1. 6-item, 5-point Likert type, 2 sub-scales: Emotional Interaction & Mediated Interaction	Positive interaction	Mothers & Children (n=82)	Quantitative & Qualitative (Observation)	Pre-Post	This tool was developed in line with the 8 themes of ICDP intervention for improving mother-child interaction.
2. Mothers' participation of the intervention	2. 2-item, 5-point Likert type; item 1 observed mothers' interest level and item 2 how active the mother was during training	Monitoring intervention implementation	Mothers (n=37)	Quantitative (Observation)	During Intervention Sessions	The ORS measures the intervention fidelity.
3.Description of mothers as caregivers	3. Caregiving qualities of the mothers	Identify qualities throughout all the sessions	"	Qualitative (Observation)	"	Identify the personal qualities of mothers that have an impact of parenting skill and competency

Interview Guidelines: 1. Mothers' conception of the child	1. 2-item open-ended questionnaire: i) As a mother, can you tell me how your child is? ii) Which qualities do you see in your child?	Parenting practices and sense of competence	Mothers (n=82)	Qualitative (self-report)	Pre-Post	1. Basic element of the ICDP that helps to sensitize mothers about their children that may impact on parental competency and skills.
2.Intervention Experience a. Overall feedback b. Daily feedback	2. 5-item open-ended questions related to intervention evaluation 3. 4-item questions regarding daily feedback	Benefits of the intervention ”	Mothers (n=37) Mothers (n=37)	Qualitative (self-report) ”	Post On-session	2. Directly helps to measure the benefits and changes due to intervention. 3. Helps to assess the understanding about each session's content.

Note. N=82 refers to the retained Intervention (n=37) and WLC group (n=45) mothers.

3.5 PROCEDURE

This section presents an overview of the study procedures, including the process for adaptation and piloting of the measuring instruments, the process of intervention module adaptation and pilot-testing, and the data collection procedure. Data collection procedures discuss in detail the recruitment of research assistants, the pre-test data collection, participants' randomisation, the intervention implementation process for intervention groups, the post-test, the intervention process for WLC groups, fidelity, and incentives.

3.5.1 *Adaptation and Piloting of the Measures*

The Parenting Sense of Competence (PSOC) and Parenting and Family Adjustment Scale (PAFAS) - Parenting (see Section 3.4) were translated and piloted for the current study. As the original language of both tools was English, this study was required to translate the instruments for use in Bangladesh. Moreover, the earlier translated version of PSOC had complex language issue and subsequently needed further translation. The steps of adaptation are briefly described hereunder (Sousa & Rojjanasrirat, 2011):

First, the original instruments were translated into Bangla language by two independent bilingual translators, that is, "forward translation" was carried out. The mother tongue of both translators was Bangla and two forward-translated versions of the instruments were produced.

Second, the two forward-translated versions were initially compared by the principal researcher (third bilingual translator) regarding ambiguities and discrepancies of words, sentences and meanings. When ambiguities and discrepancies were found, then the principal researcher and the other two translators together generated the preliminary translated version of the instruments as a team. Then, these initial versions were sent for experts' judgment. Three experts from the Department of Educational Psychology and Counselling Psychology at the University of Dhaka

assessed the instruments' semantic, idiomatic, conceptual, linguistic and contextual differences. Then, the further translated versions were produced by synchronising the three experts' comments regarding the tools. Item no. 2 and 17 for PSOC and item no. 4, 14, and 15 were modified for PAFAS-Parenting after synchronising the three experts' feedback.

Third, the Bangla preliminary versions were given to two other independent translators to be translated back to the original language of the instruments. Both translators were bilingual, having an academic background for doing the task, and were completely blind to the original version of the tools. Consequently, they produced two back-translated versions of the instruments in its original language.

Fourth, the two back-translated versions were synthesised and compared with the original language instruments by the principal supervisor, Professor Dr. Linda Gilmore, Faculty of Education, QUT, Australia. After receiving her feedback, all the four translators who were involved in forward and back-translations and the researcher worked with items' ambiguities or discrepancies. These items were 1, 3, 6, 13, and 14 for the PSOC and items 4 and 7 for the PAFAS-Parenting scale. PAFAS item no. 4 was okay with the example "Television" as most of the underprivileged families have "Television"; so, the example did not need to be modified. Then the considered items were re-translated. This process was also used for checking validity to ensure that the translated versions were reflecting the same item content as the original versions. Finally, this process produced pre-final versions of the instruments that were ready for pilot testing.

Piloting Parenting Sense of Competence (PSOC) Scale. The purposes of the piloting were to determine the overall understanding and interpretation of the scale items by the participant sample to revise any unclear translations and concepts (WHO, 2019), and to assess reliability for determining the usability of the scale.

The pre-final version of the PSOC was piloted with a small sample of Bangladeshi underprivileged mothers (n=30) of children aged 6 to 10 years. In addition, the researcher used a "6-glass pictorial scoring card" showing glasses whose water content gradually increased from "empty glass" to "glass full of water" that depicted the scoring points of the

scale. This scoring card helped mothers to visualise the scoring options and respond easily. The mothers were also instructed to ask questions whenever they did not understand any of the scale items. The mothers had queries about items no. 1, 8, 12, and 14. In response to these, the researcher used repetition, delivered the same items at slower pace, and provided relevant examples. The findings showed the reliability of the total scale to be $\alpha = 0.57$ (M = 69.53, SD =9.55), Efficacy $\alpha = 0.51$ (M = 32.53, SD =5.30), and Satisfaction $\alpha = 0.62$ (M = 37.03, SD =7.59). Content validity was assured by checking items during the development of the Bangla version of the PSOC. Although the alphas from the pilot testing were relatively low, the PSOC was included in the current study as changes in parenting sense of competence was one of the primary targets of this intervention and the PSOC represented the best available measure for the target population. In addition, the researcher considered that the larger sample of main study would increase the alphas.

Piloting Parenting and Family Adjustment Scale (PAFAS) - Parenting. The pre-final version of the PAFAS- Parenting scale was piloted with a sample of Bangladeshi underprivileged mothers (n=25) of children aged 1 to 6 years. Here, a committee with five experts was involved to evaluate the instructions, response format and the items of the instruments for clarity. In a similar manner as for the PSOC's scoring card, the researcher used another pictorial card with 4 glasses of water for PAFAS scoring options (see the above paragraph). The mothers were also instructed to ask queries about the scale items. The researcher delivered the items at a slower pace so that the mothers could understand them. The mothers had no queries regarding the items of PAFAS-Parenting. Cronbach's alpha values of this pilot testing are presented in Table 3.4. The values of alphas were low in Coercive Parenting and Positive Encouragement sub-scales. Possible reasons for the low alphas could be the small number of items, poor inter-relatedness between items or heterogeneous constructs (Andreasen & Olsen, 1982; Tavakol & Dennick, 2011). In addition, the Parental Consistency sub-scale had a negative value due to the average of inter-item correlation being negative. Content validity was assessed by checking items during the development of the Bangla version of the PAFAS. All collected data were compared by the expert committee. The data collector reported that the participants easily understood all items of the PAFAS. Then, the final Bangla version of the instrument was prepared for the main study.

Table 3.4

Cronbach's Alpha Coefficients from Pilot Testing of Bangla PAFAS Parenting Scale

Sub-scales	No. of items	α (Mean, SD)
Parental Consistency	5	-.30 (8.84, 1.93)
Coercive Parenting	5	.41 (7.64, 2.27)
Positive Encouragement	3	.30 (1.88, 1.39)
Parent-Child Relationship	5	.78 (3.60, 2.96)
Total PAFAS Parenting	18	.63 (21.96, 5.69)

Piloting Observational Rating Scale. This schedule was used on a pilot basis with 3 mother-child dyads in a slum area. Table 3.5 presents the inter-rater ratings on each of the 6 items which demonstrate that the inter-rater observers had 100% agreement on sensitivity, acceptance, and self-regulation; 66% agreement on talking and engagement; and 33% agreement on responsiveness. For the 3 measures with less than 100% agreement, the researcher and the second rater again discussed about the 3 descriptors and rated independently; both of them agreed to revise the descriptor of "responsiveness of the child". After that, the researcher revised that descriptor with further literature review (Kochanska & Murray, 2000), discussed with the second rater, and then coded with the second rater. Finally, all items had 100% inter-rater agreement and the observation schedule to use for the final study was produced.

Table 3.5

Observational Ratings on 3 Mother-Child Dyads (Pilot)

	Behaviours	1st dyad		2nd dyad		3rd dyad	
		1st Rater	2nd Rater	1st Rater	2nd Rater	1st Rater	2nd Rater
Emotional Dialogues	Sensitivity to the child	Low (2)	Low (2)	High (4)	High (4)	Very Low (1)	Very Low (1)
	Talking with the child	Low (2)	Low (2)	Moderate (3)	Low (2)	Very Low (1)	Very Low (1)
	Acceptance of the child	Very Low (1)	Very Low (1)	High (4)	High (4)	Very Low (1)	Very Low (1)
Mediated Dialogues	Effective engagement to child	Very Low (1)	Very Low (1)	High (4)	Very High (5)	Very Low (1)	Very Low (1)
	Responsiveness of the child	Very Low (1)	Very Low (1)	Moderate (3)	High (4)	Very Low (1)	Low (2)
	Guidance to achieve	Low (2)	Low (2)	High (4)	High (4)	Very Low (1)	Very Low (1)

self-regulation

3.5.2 *Adaptation and Piloting of the Intervention*

This section discusses the process of adaptation of the 8-session intervention module. The original manual of the ICDP was designed for ICDP training courses including theoretical concepts, necessary backgrounds for understanding such concepts, various kinds of exercises for diverse target groups. The following steps were considered for intervention module adaptation of this study (Sousa & Rojjanasrirat, 2011):

First of all, the researcher was required to design the module for the underprivileged mothers of Bangladesh. By considering the original manual along with the researcher's previous experience of working with the slum mothers, the researcher prepared an English version of the intervention module. Specifically, slum mothers' level of literacy (mostly illiterate), cognitive capacity (difficult to comprehend jargon and complex sentences), mode of activity (audio-visual, group discussion, individual thinking, joint activity and so on) helped to select the specific exercises from the ICDP manual. The reason for preparing this module in English was that there were only two certified facilitators of the ICDP in Bangladesh. One was the researcher and another one (reviewer of this module) was studying abroad. All trainers of the ICDP were foreigners and English language speakers. After preparing the module draft, the researcher sent it to two experts for reviewing the English version of the module for underprivileged mothers of Bangladesh. One expert was a renowned trainer of the ICDP and Associate Professor at University of Oslo, Norway; another expert completed the training of the facilitator and was an Associate Professor at University of Dhaka, Bangladesh. She is currently doing her PhD in Germany. After receiving their feedback, the researcher revised the module accordingly and finalised the English version of the module. The content of the finalised module covered various

activities. These were exchanging greetings between the mothers and the intervention team including facilitator, observers, and child carer; making ground rules by the collaboration of participants and facilitator; asking mothers' expectations from the intervention; introducing ice-breaking activities; introducing session content and relevant activities; giving homework for the next session's discussion; summarising the sessions, daily session assessment; providing incentives; and last session's review.

Second, the finalised English version of the module was translated into the Bangla language by two independent bilingual translators producing two forward-translated versions of the module. The mother tongue of both translators was Bangla. They were graduates from the Department of Educational and Counselling Psychology at the University of Dhaka and currently working in the non-government organisations where having efficient skills in both Bangla and English language was a prerequisite.

Third, the two Bangla translated versions were initially compared by the researcher (third bilingual translator) looking for ambiguities and discrepancies of words, sentences and meanings. When the researcher found ambiguities and discrepancies, then the researcher along with two translators addressed those doubts. In this way, the preliminary translated version of the module was produced as a team. Then, the initial translated module was sent to three experts for their judgment. All experts were from the Department of Educational and Counselling Psychology and had relevant experiences of several years. They assessed the module's semantic, idiomatic, conceptual, linguistic and contextual aspects. Then, the preliminary translated version was produced by synchronising the three experts' comments. This preliminary Bangla module was then given to a translator for "back translation". This translator was bilingual, having an academic background for doing the task, and was completely blind to the English version of the intervention module. Next, the back-translated version was compared with the researcher's English version module by the researcher. Both versions reflected the same content and a pre-final Bangla version of the intervention module was produced for the pilot testing.

Overall, the module was prepared based on the process of seven sensitisation principles and introducing eight themes of positive mother-child interaction by focusing on the disadvantaged mothers' learning capacity and cultural appropriateness, such as- using pictures

and videos of Bangladeshi mother-child dyads to demonstrate the eight themes of the ICDP, using observational activities with the child as their homework instead of written homework.

Preparation of Intervention Audio-Visual Materials. The researcher was required to prepare the ICDP theme-based audio-visual materials for the intervention sessions. According to the module, a total of seven mother-child interaction videos were used from theme 3 to theme 7. For theme 3, there was two video segments where one part focused on "less interaction during a colouring activity" (2 min. 13 seconds) and the other part focused on "more interaction during a colouring activity" (2 min. 12 seconds). A video about "praising and acknowledging the child" (2 min. 46 seconds) was important for visualising and understanding theme 4. For theme 5, the researcher showed two videos: "Attention-calling strategies during mother-child pretend cooking" (2 min. 20 seconds) and "attention-diverting strategies during mother-child toy playing" (1 min. 17 seconds). The video of theme 6 was based on "giving meaning to the child while introducing different body parts of a chick" (1 min. 10 seconds). "Explaining a shared event: Combing hair" was the outline of theme 7's video (1 min. 28 seconds). All these videos were prepared with Bangladeshi mother-child dyads. The content of videos was based on the definitions of the ICDP's themes (Hundeide, 2010). By considering the themes, the researcher and another independent researcher were separately making videos about mother-child interaction at the time of their joint play. In some cases, the researchers asked the mothers to play freely, and in the other cases the playing situations were created to visualise the specific concepts, such as- praising and talking to the child. After capturing these videos, this study researcher carefully compared the videos and the concept of the themes. More accurately visualised materials were selected for piloting.

Another visual material was a "picture card" that consisted of eight photos of Bangladeshi mother-child interaction representing the eight themes of the ICDP (Hundeide, 2010). The researcher took plenty of pictures and then selected at least three pictures for each ICDP theme. After that, the researcher gave those pictures to an illustrator and a trained ICDP facilitator for selecting which picture would go with each theme. By comparing both specialists' selections, the researcher prepared the picture card. For example, the content of theme 1 was demonstrating positive feelings/love to the child. After introducing this theme, the card with photos of all eight themes was shown to each mother in the group (each mother held the card for 10 seconds). Then, all mothers were asked to say which picture most represented theme 1. After hearing the mothers' answers, the researcher explained why one photo was the right answer and

the remaining seven were not. The mothers mostly answered correctly and that was acknowledged by the researcher. At the end of all the sessions, the researcher provided the plastic laminated picture card with labelling of eight themes to all mothers. This picture card was used during the intervention in order to identify the themes.

Furthermore, the researcher also prepared "posters" with mother-child interaction photos and asked the participants to identify which posters went with which themes. After scrutinising photos for the above-mentioned picture card, the researcher used the rest of the selected pictures for the posters. The researcher prepared 8 posters for the eight themes. In the last session, the researcher used these posters for a group activity and asked the mothers which posters went with which themes.

Piloting the Intervention. Pilot testing of the module was conducted with a small group of slum mothers (N= 4) who were from Azimpur slum area. The researcher conducted 2 sessions in the same day as the researcher and participants both had limited time. During this piloting, the researcher monitored the way in which statements were delivered and how easily the participants responded. When the participants demonstrated any difficulties in understanding, then the researcher rephrased the statements. All of the changes were noted carefully by the researcher. Finally, all sessions' logbooks were synthesised and the revised changes were incorporated into the Bangla module for final implementation.

In addition to this, intervention materials were also checked by the pilot participants whether they could understand the concept of the audio-visual materials and could relate to the specific themes of the intervention sessions. The participants gave their consensus for showing one video (out of two videos) that represented themes 5, 6, and 7. For example, there were two videos for theme 7; one joint task was mother-child combing situation and another was mother-child playing situation. In this case, all 4 mothers endorsed the "combing video" for theme 7. However, there was only one video for theme 3 and 4 where the participants discussed the relevance of the videos and reported positively. Similarly, the pictures of corresponding themes were selected by the participants.

3.5.3 *Recruitment of Research Assistants*

As the researcher ran the intervention sessions for this study, the researcher could not collect pre-post data. An involvement of the researcher in the pre- and post-test might have impact on the randomisation of the participants, i.e., selection bias and the outcomes of the

intervention, i.e., ascertainment bias (Kumar & Yale, 2016). To avoid bias, the study was required to involve research assistants (RAs) who were blind to intervention conditions. Hence, a total of fifteen RAs were recruited and trained for the data collection. All of them were volunteers of HEAL Bangladesh Foundation which has been working for betterment of underprivileged children's mental health. They were graduates from the Department of Psychology and Department of Educational and Counselling Psychology at the University of Dhaka. Although the students had already acquired a high level of skills in interviewing parents and children, counselling with adults and children, and conducting observations in natural situations, they were provided specific training by the researcher for the current study. The RAs' training concerned the measures used, how to build rapport and communicate with the slum mothers and their families, how to use language while communicating with the mothers, how to score the measuring instruments, how to conduct direct observations or video-recordings, how to conduct interviews, and how to transcribe observation and interview data. Demonstration, direct instruction, discussion, and homework methods were used to facilitate the training. A total of 8 hours of training was provided to RAs over 2 days (4 + 4= 8 hours). For assisting in this research, the RAs were provided with a small payment (BDT 4500) and an experience certificate.

3.5.4 *Pre-test Data Collection*

The pre-test phase collected data from 19 January to 27 January 2019. Several preparations were considered prior to the collection of pre-test data. The details of important preparations are mentioned below:

i) First, the researcher contacted the individual in charge of the NGO in order to notify her for commencement of data collection. The researcher also contacted the field staff member to confirm her availability during data collection.

ii) Seven RAs were recruited through training for pre-test data collection. The researcher was conducted a lottery (that is, wrote numbers 1 to 7 on separate small sheets of paper, then fold them and asked the RAs to pick one) for identifying the serial codes of seven RAs. That means, the RA who picked number 3 became the third data collector.

iii) Seven sets of the same play materials were bought for the RAs. Though most of the children had their own toys, these play sets were created as a variation for the mothers and their children. One set included a picture book of animals, soft ball, sound toys in the form of animals, e.g., turtle, duckling, cat etc., rattler, and 2 pieces of colour crayons with drawing book. RAs reported that most of the children liked the materials, especially sound

toys, ball, and colours. The selection of toys was suggested by the expert from the International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b) who trained the RAs.

All these arrangements were prepared and organised by the researcher prior to pre-test data collection. On the first day of data collection, the researcher introduced all RAs to the NGO's staff. All staff of the NGO were very cooperative and hospitable towards the research team. They showed the room that could be used for organising the research materials, doing group discussion, and giving the RAs' confidence and motivation. The researcher gave encouragement, saying "All of you can do this. Just give me a call if there is a question or any emergencies. I will be waiting here".

All pre-test questionnaires were completed by seven RAs. One of them collected data only on the first day. After that she could not continue as she had fallen sick. The frequency of data collection of seven RAs were 18, 2, 17, 13, 16, 17, and 17 consecutively.

3.5.5 *Randomisation*

After completing pre-test, the 100 participants were randomly assigned into five intervention groups (5X10=50) and five wait-listed control groups (5X10=50) by using random number tables. By using wait-list control groups, all participants had the opportunity to attend the same parenting intervention.

3.5.6 *1st Phase Intervention Implementation*

Eight group meetings were conducted with two-hour sessions once a week for the intervention groups. A diary or logbook was used to keep records of all the intervention implementation related information, that is, date and duration, number of participants attending each session, greetings, ground rules, expectations of the participants, ice-breaking activities, content of the session, content relevant activities, homework, session summary, daily assessment about feedback of participants and their way of participation, and incentives. These qualitative components help to assess the cultural and ecological validity of the intervention, ensure the intervention fidelity, and understand the overall experiences of participants. All record keeping and assessment were conducted by two RAs as the researcher

was focused on intervention facilitation. Special sessions were also organised in order to update the participants who had missed their regular sessions. Reminders (via phone calling or NGO field staff) were given to the participants 3-4 hours before the session and next session notifications were given at the end of each session.

During the 1st phase intervention time, the wait-list control groups were contacted twice over the eight-week period for 2 minutes via telephone in order to maintain contact as a retention strategy (Golley et al., 2007). Thirty mothers (out of 50) could be contacted by phone while the rest of them were contacted via mothers of intervention groups who were relatives or neighbours of those wait-listed mothers.

Another practical issue was encountered during program implementation phase, that is, childcare for participating mothers. The researcher recruited two volunteers from the HEAL Bangladesh Foundation who were experts in handling underprivileged children. While mothers attended their intervention sessions, their children were taken care of by two of them (those who brought their children due to being unattended at home during intervention). There was a set of play materials for the children, e.g., plastic balls of different colours, rattlers, squeeze toys in the shape of animals with sound, fruits and vegetables toys, and toys in the form of kitchen utensils. The children mostly liked those toys.

3.5.7 *Post-test Data Collection*

After implementation of the first phase intervention, post-test questionnaires were completed by six RAs one week after the intervention. Each participant (intervention and wait-list groups) completed the questionnaires in interview format and were observed by the RAs who were not involved in the intervention or previous assessment period. Then, experience of the program related interview was conducted with all intervention participants. All these interviews were audio-recorded by the RAs.

3.5.8 *2nd Phase Intervention Implementation*

The same procedure was followed as in the 1st intervention implementation. This time, wait-list control groups took part in the 8-week intervention. The same RAs were kept maintaining log books and during sessions' assessment for ensuring the intervention quality. Reminders were also given to the participants. However, the researcher did not conduct any extra or special sessions for this WLC groups. This intervention phase was implemented for

ethical reasons rather than fulfilling the study purpose. The child care arrangement was also considered as it was done during the first phase of intervention.

3.5.9 *Intervention Fidelity*

Assessing intervention implementation was considered an important factor for an evidence-based parenting intervention program (Baumann et al., 2016). Fidelity refers to the implementation of an experimental manipulation being conducted as planned (Dumas, Lynch, Laughlin, Smith, & Prinz, 2001). This parenting intervention satisfied fidelity requirements: Intervention design protocol, intervention training, monitoring of intervention delivery, and monitoring of intervention receipt (Baumann et al., 2016). More specifically, this research used the ICDP manual to design the session modules and supporting audio-visual materials for the intervention. The researcher was internationally certified as an ICDP facilitator which satisfies the competency criterion of fidelity. More importantly, the entire implementation process was recorded by detailed note-keeping of the trained observers. The detailed note-taking quality of the delivery of the intervention has been mentioned in Sub-section 3.5.6. The dosage the participants received of the intervention was monitored in three ways: Observers' assessment of mothers' level of participation during training, feedback from daily sessions, and overall intervention feedback. These assessments were the fidelity of the intervention implementation.

3.5.10 *Incentives for Participants*

As incentives increase the probability of regular attendance of the participants, the researcher used two forms of reinforcers during the intervention sessions of both groups. These two types were: Regular snacks as a "continuous reinforcer" and soft toys and learning materials as "partial reinforcers" (Feldman, 2007). The incentives included tea along with a packet of cake, packet of chocolate biscuit, packet of nut biscuit, savoury snacks (chanachur), potato chips, or noodles. At the end of every session, the researcher arranged a cup of tea and one of the above-mentioned snack items for each of the participants. In order to reduce attrition, the researcher also used a "variable-interval reinforcement schedule", that is, soft toys and learning materials for the children, along with regular incentives for participation. The soft toys were given to the mothers on session 3 and learning materials (Bangla alphabets with picture poster) were given on the last session. In addition, the participants were given a picture card that included pictures representing each of eight themes of learning from the intervention.

3.6 ETHICS

The ethical issues were vital to be considered during all phases of this research process. These phases of ethics are briefly mentioned here (Creswell, 2013, 2014).

Prior to conducting the study, it was important to examine professional association standards while dealing with individuals as study participants. Through the "code of ethics", the inquirer addressed her credibility, competency, and professional skills for conducting a specific study. These issues were also faced during this study, such as the researcher being required to be certified for implementing the intervention and the RAs being required for measuring pre-and post-measures with sufficient training and supervision. While carrying out the initial pilot study for translating and determining psychometric properties, it was essential to provide information to the participants, avail signed consent of the participants having been informed, and of course ensure confidentiality of the participants.

Prior to the field study, approvals were required from the University Human Research Ethics Committee (Queensland University of Technology, Australia), Ethics Committee at the Faculty of Biological Sciences (University of Dhaka), and the local organisation in Bangladesh to gain access to the site and participants. The research approval letters are attached in Appendix I. The participants and their families were provided a study information sheet with relevant illustrations so that they could visualise the concepts as they were mostly illiterate. The study information sheet and the format of consent form are included in Appendix J and K, respectively. The research information sheet included the purpose, methods, demands, expected risks and benefits, confidentiality issues, a section to indicate the participants' right to withdraw from research, and incentives to encourage their regular attendance. The participants' decision on whether to participate or not in this research and to withdraw after a maximum of 4 weeks after data collection without comment or penalty was respected.

During the data analysis, the original names of participants were replaced with "identification codes" to maintain their confidentiality and anonymity. The data would be reported as it occurs without any manipulation. Additionally, the reference citations were necessary for reporting the thesis so that others' contributions were also recognised. Sharing the data with others except the supervisors was strictly maintained in this study. These data were safely kept in a locked storage system.

3.7 CONCLUSION

This Chapter has presented the methodological concepts for this study. The objectives of this study were to adapt a parenting intervention, to implement it, and to evaluate its effectiveness. According to the objectives and research questions, this chapter introduced a pragmatic RCT with a mixed method design. This mixed method design is a combination of pre-post experimental design and qualitative observation and interviews. The non-government organisation as "gatekeeper" of this study, single setting and its rationale, selection criteria of participants and their demographics were discussed. A detailed description of measuring tools along with their cross-cultural psychometrics were presented under Section 3.4. The instruments' section of this study was also summarised in a tabular form that indicated what changes were made for the current study, what type of method was followed for using the scales, the assessment time and rationale for using those scales. In order to maintain a rigorous procedure, a standardised process was followed for the intervention and instruments' translation and trialling. Data collection procedures were detailed in this Chapter, that is, pre-test, randomisation of participants, post-test, intervention implementation, fidelity, and incentives. In addition, this Chapter also highlighted the importance of ethical considerations in terms of ethics of human research. Next, Chapter Four will explore the mothers' experience about the intervention. After that, Chapter Five will represent the effectiveness of the intervention by analysing the quantitative and qualitative findings of this study. The individual cases and their comparative discussion will be reported in the following Chapter.

Chapter 4: Mothers' Experience of the Intervention

This Chapter presents data with respect to the mothers' experience of the intervention. The content of intervention experience covers: (i) parent engagement in the intervention as observed by RAs, (ii) what mothers reported they learned from the intervention, (iii) how they reported their parenting had changed, and (iv) what mothers said they found difficult in the intervention and what could be improved. The purposes of investigating the mothers' experiences of the intervention were to monitor the implementation process of the intervention, to inform future development of the intervention, and to provide some insights which might help to explain the results of the quantitative and qualitative analyses. The researcher analysed the mothers' experience of the intervention (n=37) through thematic analysis. Identified themes from the feedback data were further analysed by an independent researcher who was blind to the themes. After that, the two independent researchers discussed the themes that they extracted and the coding alongside them. Moreover, re-analysis was conducted when there were discrepancies between coders about themes and coding. This process was done as part of reliability analysis for the themes and coding. Here, the researcher only focuses on the intervention group mothers, and only on descriptions of their engagement and their feedback on the intervention experience.

Section 4.1 presents maternal engagement during the intervention. The mothers' feedback about the intervention are described in Section 4.2. More specifically, this section discusses what mothers learned from the intervention in sub-section 4.2.1, the changes in mothers' parenting after the intervention in sub-section 4.2.2, and feedback about difficulties and areas of improvement in the intervention in sub-section 4.2.3. Following that, Section 4.3 presents the concluding remarks of this chapter.

4.1 PARENT ENGAGEMENT IN THE INTERVENTION

This Section focuses on the participants' engagement in the intervention. The researcher identified two types of maternal engagement: Involvement with their children and participation in the intervention. The RAs were instructed to observe and evaluate the mothers (n=37) at the end of each session.

The specific instruction for maternal involvement with children was "*What kind of caregiver would you say this person is?*" The RAs took detailed notes of the description of the caregiving nature of the mothers. More specifically, the RAs identified the mothers' caregiving qualities through the group discussion and their behaviour with their children. Therefore, the purpose of this subjective and spontaneous description from the RAs was to evaluate the caregiving nature of the mothers and to explore the caregiving qualities that they showed throughout the sessions. By summing up all the sessions, the researcher could list twenty-two caregiving qualities of the mothers. Of these qualities, seventeen were considered as "positive" and five were "negative". Positive qualities consisted of optimism, interested, consciousness, caring, responsible, affectionate, curious, cordial, attentive, confident, tolerant, enthusiastic, cautious, adaptive, dedicated, orthodox, punctual, and spontaneous. In contrast, negative qualities of the mothers identified as absent-minded, confused, restless, uncommunicative, and harsh (coercive parenting). However, most negative qualities indicated mothers' characteristics that showed a lack of interest and low participation in the intervention. Table 4.1 displays some of the positive and negative qualities of the participating mothers along with their corresponding observational scenarios.

To assess mothers' commitment in participating in the intervention, the RAs were asked to observe them throughout the session and then rated each mother on a 5-point Likert scale about their interest and activity level during the intervention. With respect to the mothers' regularity and attendance, the researcher found that more than half of the mothers (21 out of 37) attended all eight sessions, 12 mothers attended seven sessions in total and 4 mothers participated in only six sessions of the intervention. The researcher identified four mothers (ID44, ID105, ID107, and ID133) who showed the highest interest level, which is scored 5 on average, towards the intervention. In the activity level of the mothers, five (ID44, ID54, ID105, ID115, and ID133) showed their enthusiasm and activities throughout the sessions. In counterpart, three mothers

(ID7, ID47, and ID76) scored low in their interest in the intervention. Among them, two mothers (ID47 and ID76) were identified as lethargic and less participatory in the sessions.

Table 4.1

Observed Mothers' Qualities as Caregivers with Their Identification Codes

Positive Qualities	Observed mothers (ID codes)	Observational excerpts
Optimism	All intervention mothers, except ID44	"The mother did not concentrate properly during the session. She was optimistic about her child's progress. Her child will be educated and good human being. She was caring to her daughter."
Interested	All	"She was very *spontaneous* during the session. However, she had a gap in knowledge about child care and development. She was *responsible* and *trying to know* about child care."
Consciousness	All	"She looks after the child very *carefully*. She *keenly observes the behavioural changes* of the child with different incidents. *Accordingly, she behaves with her child*."
Adaptive	ID6, 33, 42, 44, 63, 107, 118, 130, 133	
Caring	All except 21	
Affectionate	Except 06, 42, 47, 62, 79, 108, 110, and 115	"She came *on time* for the session. When her child cried at the session, she breastfed him. She was *caring and affectionate* towards the child."
Cordial	Except 06, 26, 33, 42, 47, 48, 54, 62, 72, 76, 88, 93, and 108	"She was *cordial and tolerant* to the child. She was seen taking care of the child throughout the session. She understood the child."
Attentive	Except 01, 38, 54, 76, 88, 93, 107, 110, 111, 125, and 133	"The mother was *attentive* during the discussion. She was sharing about her child."
Negative Qualities	**Observed mothers (ID codes)**	**Observational excerpts**
Absent-minded	01, 06, 07, 21, 26, 33, 42, 47, 50, 79, 84, 108, 129	"She was *absent-minded and restless* during the session as she had to go to her workplace/home."
Restless	21	
Confused	47	"She was attentive during the discussion. However, she was *confused* when the facilitator asked her to share her experience. She was *attentive and affectionate* to the child."
Indescribable	47, 63, 76	"The mother was attentive throughout the session but could not properly express her understanding of the session."
Harsh	06, 38, 48, 53, 59, 115	"When my child did not listen to me and did not have a meal, the mother was very harsh and ruled over the child."

4.2 MOTHERS' FEEDBACK ABOUT THE INTERVENTION

The mothers provided their intervention feedback in two ways: End of individual sessions and end of the intervention. Based on the importance of feedback data, the researcher prioritises three feedback questions from the individual sessions. These questions were: i) what did you learn in this session? ii) what did you find difficult in the sessions? and iii) is there anything that you feel should be improved or changed? In addition, the feedback was also taken from the mothers at the end of the intervention, that is, the post-intervention phase. The researcher gives attention to four feedback questions of this interview. These four questions were: i) what are the most important things you learned from the intervention? ii) in what ways has your parenting of your child changed as a result of the program? iii) what strategies are you now going to use with your child that you learned in the program? and iv) what difficulties did you face during the intervention? In some instances, one mother commented about several themes. In other instances, mothers talked about various perspectives within a single theme. These themes were also matched with the eight ICDP components that were taught in the intervention.

4.2.1 *What mothers reported they learned from the intervention*

Both feedback interviews focused on what mothers learned from the parenting intervention.

Feedback from individual sessions. The question asked of mothers after each daily session was "what did you learn in this session?" The mothers made more comments following the fourth session and fewest at the seventh session. As previously, the researcher repeatedly went through all of these comments and categorised them into content and activity-focused feedback. Table 4.2 presents the main themes and sub-themes with mothers' statements about what they learned from the intervention.

Table 4.2

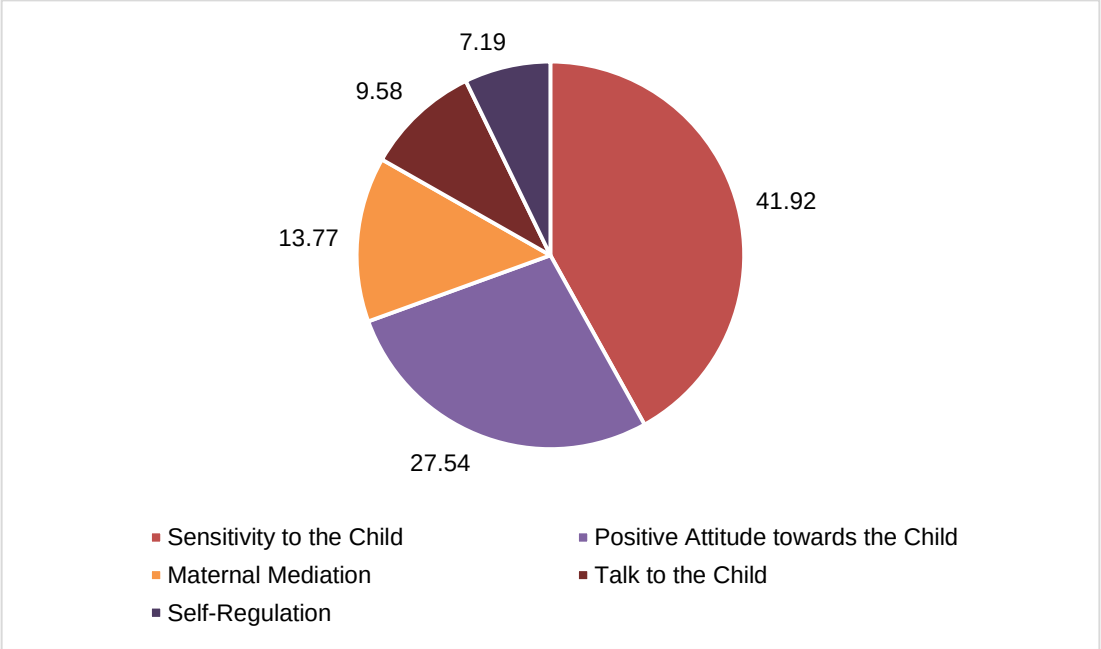
Thematic Analysis of Mothers' Learning Contents from the Individual Sessions

Content-focused themes	Mothers' statements (identification codes)
Positive attitude towards the child	1. "Show respect to the child" (062) 2. "Take care of the child and make her happy" (054)
Sensitivity to the child	1. "My child is happy when I hug him and give him some toys" (092) 2. "When the child does something good, then I will praise her. For example, if she dresses up nicely, I say, *you look so beautiful*." (111)
Talking to the child	1. "Exchange emotional conversations with the child" (110) 2. "Show love to the child by talking to him" (093)
Focusing attention	1. "How to help my child to focus his attention. I make him focused on the toys so that he can sit and I also play with him" (110) 2. "How to help my child to be attentive" (111)
Giving meaning	1. "I show my interest in the child's task and describe her about the task" (118) 2. "Help my child to do his activities by telling what he is doing" (062)
Elaborating joint task	1. "I help the child to do her hairstyle by showing, explaining, and using physical prompt" (006) 2. "Explaining how to play with cooking with utensils and feed her" (001)
Helping self-discipline	1. "How to do activities on own, for example having meal on own" (108) 2. "Explain to the child about the right behaviour" (129)
Activity-focused themes	**Mothers' statements (identification codes)**
Ice-breaking activities	1. "How to make toys for the child by using papers" (084) 2. "Using a ball as a toy" (001)
Video activities	1. "The mother teaches her son about body parts of the chick" (079) 2. "The child learns her hair set up with the help of mother" (006)
Identify qualities of the child	1. "Focusing on the qualities of the child while redefining bad behaviour" (033) 2. "Telling a child about her positive qualities" (128)
Practice praising	1. During praising practice with another mother, "I know and understand her qualities" (101) 2. "Praising each other" (088)

Feedback from mothers at the end of intervention. The feedback question was "what are the most important things you learned from the intervention?" Here, the researcher found a total of 41 responses which were categorised into five main themes: Sensitivity to the child, positive attitude towards the child, talk to the child, maternal mediation, and self-regulation (see Table L1 in Appendix L). These themes conveyed the most important learnings of the mothers from the ICDP intervention. Figure 4.1 represents the frequency percentages of mothers who mentioned the themes. The researcher briefly describes the themes hereunder.

Figure 4.1

Percentages of Mothers Reporting Theme by Reflecting their Important Learning from Intervention



In general, the theme "sensitivity to the child" represented the mothers' comments about showing positive feelings, adjusting to the child, and praising the child. The theme "positive attitude towards the child" denoted the comments of the mothers regarding to what extent the mothers positively perceive their children and to what extent they avoided coercive practices towards children. The theme "talk to the child" represented tell stories or rhymes, talk to the child (emotional conversation), and share or tell childhood memories (mothers) to the child. Another theme "maternal mediation" was formed by the mothers' comments that represented three sub-themes: Focusing the child's attention, giving meaning to the child's activities, and elaborating a shared event. The theme "self-regulation" represented how mothers help their children to learn discipline, control and setting boundaries. Mothers' statements about five themes are briefly presented in Table 4.3. The most important learning for the mothers was reflected in the theme "sensitivity to the child" as 41.9% of mothers responses were coded into this theme (see Figure 4.1). The second most important learning was "positive attitude towards the child" reported by

27.5% of mothers. In contrast, the theme "self-regulation" was the least important learning for the mothers being only mentioned by 7.2% of mothers.

Table 4.3

Findings of Mothers' Feedback about Intervention Learning Content at End of the Intervention

Themes	Learning content with mothers' statements (identity codes)
1. Sensitivity to the child	1. Show love: "I show love to my child" (ID 1, ID 6, ID 21,…ID 72, ID 125…) 2. Adapt to the child: "[I] follow my child's direction. [I] take [her] outside the house in order to keep her calm and relaxed" (ID 38) 3. Praise to the child: "[I] praise the child so that she will be interested in doing good [appropriate] activities" (ID 72)
2. Positive attitude towards the child	1. Positive conception about child: "I show respect to the child" (ID 63, ID 110, ID 118) 2. Avoid coercive parenting: "I do not hit my child" (ID1, ID 21, ID 33, ID62,…ID 128)
3. Talk to the child	1. Talk to child: "[I] tell rhymes, poetry, and/or stories [to the child] during feeding, sleeping, and bathing time that may be important [learning]" (ID 105)
4. Maternal mediation	1. Focus attention, give meaning, and elaborate joint task: "All topics [were important]. For example, [I] help child to focus his attention, give meaning to his activities, help him in a joint play" (ID 130)
5. Self-regulation	1. Regulate behaviour: "[I] teach [my child] about how to behave with the relatives and others" (ID128)

4.2.2 *Mothers reported their parenting had changed as a result of intervention*

From the mothers' feedback at the end of the intervention, two feedback questions are addressed under this sub-section. The first question was:

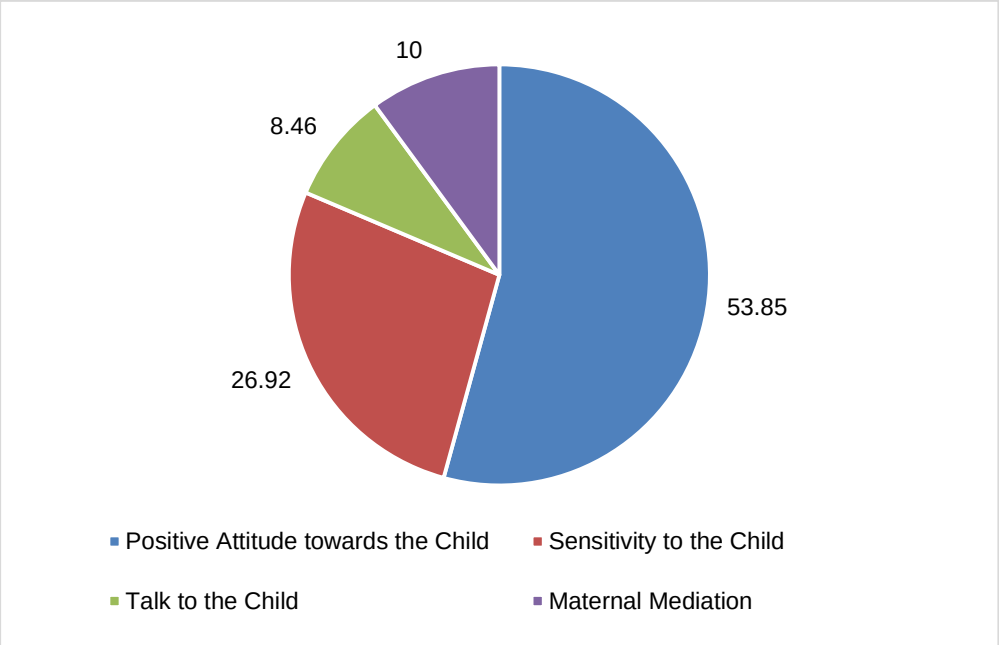
(i) In what ways has your parenting of your child changed as a result of the program?

The researcher identified thirty responses from the interviews of the mothers. Further, these thirty responses were categorised into four themes representing changes in childcaring due to the intervention implementation. Figure 4.2 shows the frequency percentages of mothers who mentioned these four themes. The most important parenting aspect was "positive attitude towards the child" that was reflected by more than 50% of the mothers whose parenting had been changed as a result of the intervention. Nearly 27% mothers mentioned that they changed their parenting in regards to "sensitivity to the child" after attending the intervention. In contrast, the least important theme was "talk to the child" which was mentioned by 8.5% of mothers. The findings

of four themes with specific identification codes (ID) of the mothers are briefly presented here in turn [Appendix L, Table L2].

Figure 4.2

Percentages of Themes Identified for Parenting Changes due to the Intervention



In general, the theme "positive attitude towards the child" represented three sub-themes: Avoid coercive parenting, positive conception of the child, and childcaring knowledge. More specifically, the majority of the mothers (thirty) reported that they used positive ways of handling their children instead of being harsh, strict, and frightening the child. In the positive conception of the child, a total of eighteen mothers contributed eight responses. For instance, they behaved well with their child, showed respect to the child, talked nicely. Another sub-theme was childcaring knowledge that consisted of four responses. Fourteen mothers in total responded about their improvement in knowledge of childcaring. Table 4.4 provides relevant examples of the themes with the number of times mentioned these examples.

The theme "sensitivity to the child" represented the mothers' comments about attending, adapting, showing positive feelings, and giving praise to the child that brought changes in parenting due to the intervention. A total of eleven mothers conveyed their statements under the theme, "maternal mediation". It represented two sub-themes: Give meaning to the child's

activities and elaborate the joint task. The last theme "talk to the child" consisted of three responses relating to talk more, console the child, and tell stories or recite rhymes.

Table 4.4

Themes and Example Comments about Changes of Parenting in Childcaring Due to Intervention

Themes	Example comments (Number of times mentioned))
1. Positive attitude towards the child	1. "[I] do not scold and use physical punishment to the child" (30) 2. "[I] give time to the child" (2) 3. "After attending this training, I do better take caring of my child" (3)
2. Sensitivity to the child	1. "[I] understand my child's mental conditions" (1) 2. "I immediately run to the child while crying" (1) 3. "I give my child's desired items in according to my capacity" (4) 4. "[I] follow my child's lead" (14) 5. "I give praise to the child" (10) 6. "I show love to my child" (5)
3. Maternal mediation	1. "[I] help child to understand his work" (7) 2. "[I] help child to accomplish his activities" (2) 3. "I play with my child and describing the activities" (3)
4. Talk to the child	1. "[I] talk to the child more" (3) 2. "[I] console my child when I cannot satisfy her demands" (2) 3. "[I] tell stories/rhymes [to my child]" (6)

The second question was:

(ii) What strategies are you now going to use with your child that you learned in the program? A total of 30 responses were received from the mothers and these were categorised into five main themes. All of these themes were associated with the responses of earlier feedback questions. The frequency percentages of responses from mothers in each of the themes are shown in Figure 4.3. The researcher briefly presents the findings below [Appendix L, Table L3].

The theme "sensitivity to the child" represented three sub-themes: Adapt to the child, show positive feelings, and give praise to the child. The majority of mothers (thirty) responded about sensitivity to their children. Therefore, this "sensitivity to the child" theme was the most applied parenting strategy learned from the intervention (36.5% of mothers see Figure 4.3). Table 4.5 presents relevant feedback examples of the themes including sub-themes and number of times each theme was represented in the mothers' responses.

Figure 4.3

Percentages of Responses in Each of Themes as Parenting Strategies Learned from Intervention

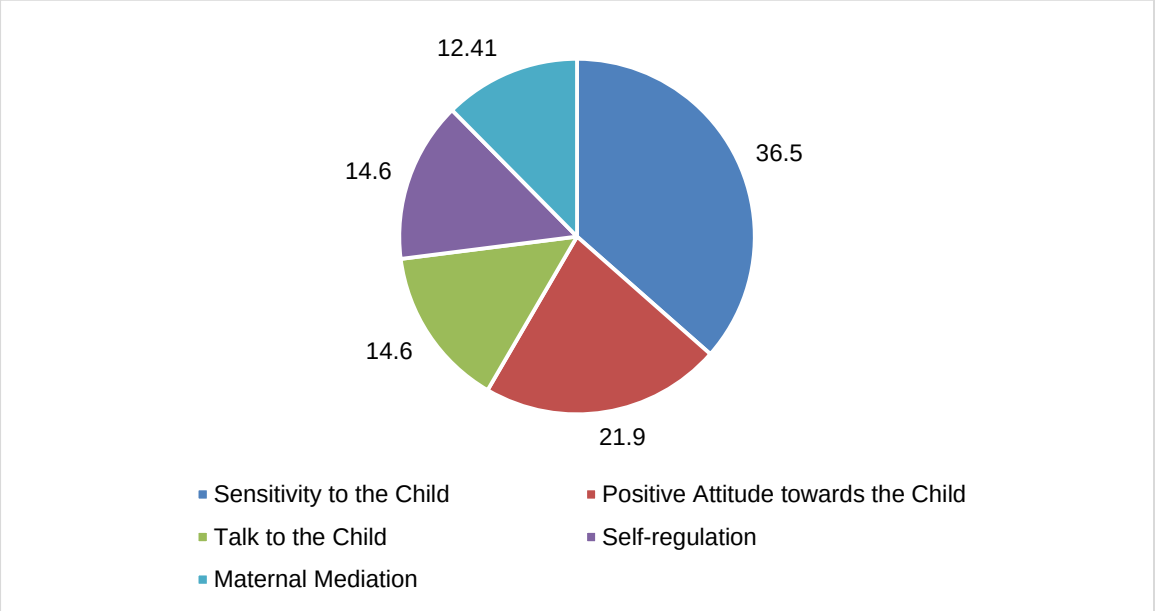


Table 4.5

Themes and Example Comments about Parenting Strategies Learned from the Intervention

Themes	Example comments (Number of times)
1. Sensitivity to the child	1. Adapt to the child. "[I] follow to the child's lead" (12) "[I] keep away dangerous goods from the child" (2) "I concentrate in accordance with my child's preferences" (2) 2. Show positive feelings. "[I] show love to my child" (14) 3. Give praise to the child. "[I] praise the child's activities" (20)
2. Positive attitude towards child	1. Childcaring knowledge. "[I] regularly take care of the child, for example, by bathing him" (1) "I play with the child regularly" (8) "I take my child for the outing when she/he shows stubbornness due to not fulfilling her/his demands" (4) "When my child demands for a toy and I cannot buy that one, sometimes I borrow toys from the neighbours" (1) 2. Positive conception. "[I] give attention to the child" (1) "[I] show respect [to the child]" (5) "[I] prioritise the child" (2) "[I] give time to the child" (1) 3. Avoid coercive parenting. "[I] less use of scolding" (2)
3. Talk to the child	1. "[I] tell stories to the child" (7) 2. "[I] console the child when I cannot fulfil the demands" (2) 3. "[I] talk to the child" (4) 4. "[I] recite rhymes"(7)

4. Self-regulation	1. "[I am] careful about child's behavior and his accompanying peers" (1) 2. "[I] educate religious activities" (4)
5. Maternal mediation	1. Give meaning. "Explain a task to the child" (3) "[I] help child to accomplish his activities" (8) 2. Elaborate joint task. "[I] make toys with home utensils for my child" (1) "[I] explain and elaborate a joint task to the child, for example, cooking" (4)

Then, a total of ten responses formed the theme "positive attitude towards the child" that represented three sub-themes: Childcaring knowledge, positive conception, and avoid coercive parenting. Nineteen mothers' responses were coded in this theme. Next, seven responses of the mothers were coded as "self-regulation". An example of a statement coded as self-regulation was "[I] educate good behaviour [to the child], for example showing a gesture of good-bye (ID1), giving salaam/religious greetings (ID7, ID26, and ID129), addressing relatives nicely (ID7, ID48, and ID88)". By educating good behaviour, each mother specified her own perspective about good behaviour. The theme "talk to the child" included four responses (see Table 4.5). The theme "maternal mediation" was formed by the two sub-themes: Give meaning to the child's activities and elaborate joint tasks. Both of the sub-themes were composed of two responses. Figure 4.3 shows that this "maternal mediation" was the least frequently mentioned with responses by 12.4% of mothers.

4.2.3 *Feedback about difficulties and areas of improvement in the intervention*

As in Sub-section 4.2.1, this sub-section covers both feedback interviews. The feedback questions represented mothers' feedback related to difficulties they faced during the intervention and areas of improvement they found in the intervention.

Feedback from the individual session. (i) What did you find difficult in the session? Here, the responses from the mothers were all related to activity-based feedback. In the first session, the mothers identified difficulties for "ice-breaking (name game) activity", "childhood sensitisation", "identifying child's qualities", and "identifying the session theme from a picture card". The mothers found the name game activity difficult as they could not recall the names of all mothers in the group. Some mothers felt it was difficult to reactivate their childhood loving memories due to their bitter experiences with their primary caregivers and /or loss of parents. The reasons for the difficulty in identifying the children's qualities were that it took more time to conceptualise the task, required verbal prompt and examples of qualities. A few mothers felt it was difficult to select the right picture from the picture card which consisted of eight pictures of mother-child

interactions. The mothers were confused about which picture matched best with the ICDP theme - showing love to the child.

Although the mothers made paper products (for example, boat, flower, aeroplane and so on) at the time of their childhood, they faced difficulties doing such "ice-breaking activity" at the second session. In the fourth session, the mothers faced difficulties with the "praising activity". As the mothers were less acknowledged for their activities, they could not find accurate words for praising other mothers. Despite such difficulties, most of the mothers reported "no difficulties" throughout the interventions. Specifically, the majority of mothers did not face any difficulties from 5th session to onwards whereas a few mothers mentioned about it for the first two sessions. Some mothers also reported "no difficulties" for the 3rd (n=15) and 4th (n=28) sessions of the intervention.

(ii) Is there anything that you feel should be improved or changed? Two factors were identified by asking this question, that is, time and interpreter. The areas of improvement about "time" consisted of changing the time of the session (3 responses) and punctuality of participants (13 responses) while the need for an interpreter was requested by a mother who did not understand Bangla. Her language issue was also identified during the data collection period when she used English as her way of expression. However, the researcher did not notice it before starting the first group's session. After she mentioned about her language issue, the researcher apologised to her, provided an interpreter, and gave her the opportunity to attend the same session with the second group of mothers.

Feedback from mothers at the end of the intervention. At post-test, the mothers were asked, "What difficulties did you face during the intervention?" Here, the majority of mothers (thirty-two) reported that there were no difficulties during the intervention. However, the researcher identified two themes regarding the difficulties faced by the mothers.

One theme was identified as "content-focused difficulties" where twelve mothers commented. Among the twelve mothers, five mothers solely reported about content problems, especially for the 2nd and 3rd sessions. On the other hand, the rest of the seven mothers firstly said about having no difficulties and then mentioned about content issues. The statements of the mothers about content difficulties were as follows:

> "When we cannot understand any topics of the intervention, madam (the facilitator) explains to us so that we can understand the topics" (ID6, ID47, ID53,..ID88,..ID105) and "when we forget the subject matters of the training, then madam helps us to remember" (ID125).

Another theme was identified as "activity-focused difficulties" where three mothers commented. All these mothers also reported content difficulties as discussed above. A statement of the mothers was "At the beginning, I did not understand lots of things, for example- naming game, pair drawing work (squiggle)" (ID6, ID47, and ID88). By identifying these difficulties and areas of improvement, the implementation process of this intervention would be carefully taken into account for use in future.

4.3 CONCLUDING REMARKS

This chapter explored the overall intervention experience of the mothers. The mothers' feedback on individual sessions, feedback at the end of the intervention, and maternal engagement during the sessions were included under mothers' experience of the intervention. The researcher identified maternal engagement in the intervention along with their caregiving qualities. These qualities were in positive (i.e., attentiveness, optimism, caring, cordial) and negative (i.e., inattentiveness, lack of communication skills, coercive parenting) forms. The positive qualities encouraged mothers to attend the intervention regularly, to become attentive and participatory, to learn new parenting skills, and to reduce coercive practices. The positive and negative qualities of the participants helped to understand their caregiving nature and engagement in the intervention.

Feedback from individual sessions reflected mainly activity-focused comments whereas content-focused feedback was prioritised by the mothers at the end of all sessions. Before attending this study intervention, the mothers rarely praised children. The mothers reported applying more or less all intervention concepts except the 5th theme of intervention, "focusing child's attention". Improvements in daily childcaring were reported by the mothers after participating this study intervention. For instance, a mother clapped for her daughter's appropriate activity during post-observation of mother-child play session (ID118). Moreover, the mothers

identified their changes in parenting due to intervention in the areas of positive attitude towards the child, sensitivity, talk to the child, self-regulation, and maternal mediation. Therefore, the researcher could match up the themes with the eight components of the ICDP intervention that ensured the standard intervention implementation.

Chapter 5: Effectiveness of the Intervention

The main aim of this research was to evaluate the impact of the International Child Development Program (ICDP) as a parenting intervention with underprivileged mothers in Bangladesh. A RCT design with mixed method approaches, quantitative and qualitative, was used for the research. The main findings of this study are presented in two consecutive chapters, that is, Chapters 5 and 6. The current chapter reports both quantitative and qualitative data findings in line with the Research Questions (see Table 5.1). The Statistical Package for Social Sciences (SPSS version 20) was used for analysing quantitative data. Thematic analyses were done manually for exploring qualitative interviews and observations. The individual cases are critically analysed in terms of both quantitative and qualitative data in the following chapter, that is, Chapter 6.

Section 5.1 presents the detailed data analysis plan of the study. Next, preliminary analyses are described in Section 5.2. The main study findings are reported in Section 5.3. Finally, Section 5.4 summarises the overall quantitative and qualitative findings along with concluding remarks.

5.1 DATA ANALYSIS PLAN

Data analysis is an ongoing process that starts from the data collection period and continues throughout the study. In this study, there were two types of data: quantitative and qualitative. Accordingly, both sets of data were analysed separately. The researcher used frequencies, percentages, and chi-square as descriptive statistics to examine differences across treatment groups (intervention and wait-listed control) in terms of mothers' age, education, occupation, child's gender, age, and other demographic outcomes at baseline (see Sub-Section 3.2.5). This section first discusses the quantitative data analysis plan for the piloting phase and then the main analysis phase in Sub-Section 5.1.1. Next, the qualitative data analysis is discussed in Sub-Section 5.1.2. Table 5.1 presents the research questions along with relevant measures, data collection methods, and analyses for both quantitative and qualitative data.

Table 5.1

Quantitative and Qualitative Data Analyses relevant to Research Questions

Research Questions	Measures	Data Collection Methods	Analysis
Q1. Does engagement in an 8 week parenting intervention increase mothers' feelings of competence as a parent?	PSOC scale (Likert-type questionnaire)	Quantitative	Repeated measure one-way MANOVA
Q2. Does participation in the intervention produce significant improvements in parenting practices?	PAFAS-Parenting (Likert-type) & IT-HOME scale (binary-choice questionnaires)	Quantitative	Repeated measure one-way MANOVA
Q3. Does engagement in the intervention show significant improvements in mother-child positive interaction?	Observational Rating Scale of Positive Interaction	Quantitative & Qualitative	Repeated measure one-way MANOVA & Thematic analysis of verbal transcripts
Q4. What changes are found in the mothers' conception of their children due to attend the intervention?	Semi-structured interview	Qualitative	Thematic analysis of verbal transcripts

5.1.1 *Quantitative Data Analysis*

In Sub-Section 3.5.1, the researcher discussed in detail the adaptation process of the measuring tools. During the adaptation phase, the researcher conducted a pilot study where data were entered into SPSS. Cronbach's alpha coefficient was calculated for analysing internal consistencies of the Parenting Sense of Competence (PSOC) scale and Parenting and Family Adjustment Scale (PAFAS) - Parenting. The researcher estimated the average correlation of each scale item with the other scale items used by using the Cronbach's alpha (Kerlinger & Lee, 2000). Furthermore, inter-observer percentage agreement was used while piloting the Observational Rating Scale (ORS) of mother-child positive interaction.

For the main study analyses, this study used repeated measure one-way multivariate analysis of variance (MANOVA). It was designed to determine whether there were any differences between independent groups on several dependent variables (outcomes) simultaneously (Creswell, 2012; Field, 2009; Gall, Gall, & Borg, 2007; Jones & Forshaw, 2012). Interactions between groups and time (2 [Intervention/Control] X 2 [Pre/Post] design) of measurement could be reported and differential changes for the intervention and for the control group would suggest an effect of the intervention on the outcomes.

The repeated measure MANOVAs were used to investigate the effect of the intervention on the sub-scales of the measures for which the psychometric data were acceptable, that is, PSOC, PAFAS, IT-HOME and ORS. MANOVA could not be used for some of the sub-scales of PAFAS (e.g., Parental Consistency and Positive Encouragement) and IT-HOME (e.g., Play Materials and Avoidance of Restriction and Punishment) due to poor psychometric data. Before conducting MANOVA for the scales, the nine related assumptions were checked by the researcher. Two or more dependent variables at interval/ratio level, independent variable with two or more categorical independent groups, independence of observation, adequate sample size, outliers, multivariate normality, linear relationship between each pair of dependent variables for each group of the independent variable, homogeneity of variance-covariance matrices, and multicollinearity were examined for satisfying the assumptions of MANOVA (Field, 2009). In addition to this, the ORS of positive interaction was analysed through inter-rater percentage agreement of 20% of total sessions. The researcher used Cohen's kappa coefficient (k) as a statistical measure for calculating inter-rater reliability (IRR) of the ORS (Landis & Koch, 1977). Furthermore, Cronbach's alphas were calculated for measuring the internal consistency of the ORS.

5.1.2 *Qualitative Data Analysis*

The qualitative analysis involves verbal transcripts from observations of mother-child interactions before and after the intervention, as well as analysis of semi-structured interviews with mothers at both time points. Thematic analysis is a widely used method of identifying, analysing, and reporting themes (patterns) within the data. This kind of analysis reflects the reality and unravels the surface of the reality. That means, thematic analysis identifies experiences, meanings, and actuality of the participants. It also examines and acknowledges the process by which the participants make meaning of their experience, and, in turn, the ways the broader social context impacts on those meanings (Braun & Clarke, 2006).

To analyse the qualitative data, six steps were taken into consideration (Braun & Clarke, 2006). The steps in analysing qualitative data were: i) organising and preparing data such as typing field notes, optically scanning materials, and transcribing interviews and observations; ii) reading through all data several times in order to understand the participants' meaning (emic perspective) and recording general thoughts about the data (etic perspectives); iii) using the "coding process" of organising data into chunks (text segments) before bringing meaning into those chunks and writing a term/word representing each category; iv) to generate a description of informants and categories/themes which could be presented in tabular and narrative ways; v) further interrelating themes and description; vi) making meaning of the data through interpretation. Overall, the verbal transcripts of observations and semi-structured interviews were analysed manually by using those thematic analysis steps.

5.2 PRELIMINARY ANALYSES

This section primarily focuses on data screening and reliability coefficients of measuring instruments, that is, the Parenting Sense of Competence (PSOC), Parenting and Family Adjustment Scale (PAFAS)-Parenting, IT-HOME, and the Observational Rating Scale (ORS). In addition, this section reports an overall examination of MANOVA's assumptions.

It was important to screen the data prior to the main analysis in order to identify any missing data. No missing or incomplete data were found in this study. The internal consistencies of the measuring instruments in this study are presented in Table 5.2 and Table 5.3. Specifically, although the PSOC, the PAFAS, and the IT-HOME are three widely used measures, the current study found some of their sub-scales had low reliability scores. In Table 5.2, the PSOC sub-scale alphas ranged from 0.51 to 0.66. On the PAFAS, the Coercive Parenting sub-scale at post-test reached an acceptable alpha (0.75) and the Parent-Child Relationship sub-scale alphas ranged from 0.55 to 0.81. The OPTE, Stimulation and Maternal Involvement sub-scale (IT-HOME measure) alphas ranged from 0.52 to 0.61. However, previous literature supported to use such low alphas in advanced statistical analysis (Field, 2009; Hinton, Brownlow, McMurray, & Cozens, 2004). The Emotional and Verbal Responsivity sub-scale of the IT-HOME had acceptable alphas of 0.75 to 0.78 in Table 5.2.

The ORS also achieved acceptable alphas that allowed further analyses examining the intervention effect.

In general, a value of 0.7 to 0.8 is an acceptable value for Cronbach's alpha (Field, 2009). As there are no agreed upon standards for a Cronbach's alpha value, it mostly depends on the fields in which the researcher is working. That means, when researchers deal with psychological constructs, alphas below even 0.7 can realistically be expected due to the diversity of the constructs being measured (Field, 2009). Literature indicates that alphas of 0.5-0.7 can be interpreted as demonstrating moderate reliability (Hinton et al., 2004). An alpha over 0.6 can be considered acceptable (Moss et al., 1998), and a value of 0.5 satisfactory when there are fewer than 20 items on a scale (Dall'Oglio et al., 2010). In an adapted 16-item PSOC scale for Portuguese at-risk parents, the reliability was α=0.69 for Efficacy and α=0.65 for Satisfaction sub-scale (Nunes et al., 2016). Both of these below a 0.7 alpha value. The justification of using measures with low alphas is dependent on two factors that influence alphas. More precisely, the length of the scale and the average of the inter-item correlation are the influential factors. A small number of items in a scale may violate tau-equivalence and gives a lower reliability coefficient. Poor inter-relatedness among scale items also provides a low alpha value (Field, 2009; Tavakol & Dennick, 2011). Therefore, it is common to have low alpha values for scales with few items, for example, 8 items for Efficacy, 9 items for Satisfaction, 5 for Parent-Child Relationship, 12 for OPTE, 8 for Stimulation, and 10 for Maternal Involvement sub-scale. Consequently, despite the relatively low alphas, the researcher chose to include the two PSOC sub-scales, the Parent-Child Relationship sub-scale of the PAFAS, and some sub-scales of the IT-HOME in the analyses.

As an advanced analysis, the researcher took steps to improve the alphas, especially for the PSOC, PAFAS, and IT-HOME. The researcher explored whether deleting particular items of the measures could improve the alphas; however, there were no noticeable improvements in the PSOC and the PAFAS measures. A small improvement of alphas was found in the Organisation of Physical and Temporal Environment (OPTE) sub-scale of IT-HOME after deleting item numbers 1 and 6 (out of 12 items). The Cronbach's alphas changed from 0.46 to 0.61 (Mean=6.06 and SD=2.168) in the pre-test and from 0.49 to 0.58 (Mean=6.24 and SD=2.123) in the post-test (see Table 5.2). The alphas were then considered to meet minimum standards of acceptability.

Table 5.2

Cronbach's Alpha Reliability Scores of the Instruments Used in this Study

Measuring Instruments	Sub-Scales	Items	α (Mean & SD) N = 82 *Pre*	*Post*
PSOC	Efficacy	08	.506 (41.02, 4.54)	.660 (40.49, 5.03)
	Satisfaction	09	.517 (25.99, 6.60)	.535 (28.62, 6.58)
PAFAS-Parenting	Parental Consistency	05	-.191 (9.87, 1.98)	-.097 (10.23, 2.06)
	Coercive Parenting	05	.599 (7.33, 3.26)	.747 (5.37, 3.54)
	Positive Encouragement	03	.413 (1.49, 1.52)	.626 (1.22, 1.34)
	Parent-Child Relationship	05	.811 (1.70, 2.32)	.549 (1.90, 1.81)
IT-HOME	Organisation of Physical & Temporal Environment (OPTE)	10	.607 (6.06, 2.168)	.584 (6.24, 2.123)
	Stimulation	08	.548 (4.52, 1.841)	.524 (4.95, 1.756)
	Maternal Involvement	10	.596 (5.82, 2.212)	.552 (7.28, 1.913)
	Play Materials	11	.454 (6.33, 1.944)	.454 (7.00, 1.853)
	Avoidance of Restriction & Punishment	05	.218 (4.12, .807)	.494 (3.94, .947)
	Emotional & Verbal Responsivity	08	.754 (4.60, 2.255)	.779 (5.55, 2.234)
ORS of Positive Interaction	Emotional Interaction	03	.901 (9.46, 3.55)	.903 (10.88, 3.11)
	Mediated Interaction	03	.900 (8.94, 3.55)	.859 (10.54, 2.83)

Table 5.3 indicates a good inter-rater agreement (for Kappa and percentage calculation) of the ORS items, except for the item "responsiveness to the mother" (moderate agreement) in Kappa coefficient.

Table 5.3

Inter-Rater Reliability Scores of Items of ORS of Positive Mother-Child Interaction

Scales	Items	Inter-Rater Reliability (n=16) Cohen's Kappa (*k*) *Pre*	*Post*	Percentage (%) *Pre*	*Post*
Emotional Interaction	Sensitivity to the child	.911*	.833*	93.75	87.50
	Talking with the child	.916*	.910*	93.75	93.75
	Acceptance of the child	1.0*	.911*	100	93.75
	Effective engagement to child	.919*	.913*	93.75	93.75

Mediated Interaction	Responsiveness to the mother	.702*	.754*	81.25	81.25
	Guidance to achieve self-regulation	.917*	.910*	93.75	93.75

Note. *p< .001

As determined in the previous Section 5.1, the repeated measure one-way multivariate analyses of variance (MANOVAs) were only used for the scales deemed reliable to examine the intervention effects of this study. It was important to test the MANOVA's assumptions prior to the main analysis. The Shapiro-Wilk test was used for assessing normality of the dependent variables. Pre/post-test data of the sub-scales of PSOC, the PAFAS-Parenting, the IT-HOME, and the ORS of positive interaction were classified as dependent variables and "Treatment Group" was classified as the independent variable. A violation of normality was found in the measures for the combination of the groups of within-factor (Time) and between-factor (Treatment Group). No significant outliers were found in the measures in both within and between-factors. There was no violation of assumptions of homogeneity of variances and sphericity in the measures which were assessed through Levene's test of homogeneity and Greenhouse-Geisser test, respectively.

5.3 EFFECTIVENESS OF THE INTERVENTION

This Section presents the main analyses of the study by focusing both quantitative and qualitative data. To evaluate the effectiveness of the intervention, this study addressed four specific research questions. In **Research Question 1**, the researcher analysed the effects of an eight week parenting intervention on mothers' feelings of competence. **Research Question 2** addressed the effects of participation in the intervention on parenting practices. Only quantitative data were used for exploring these research questions. **Research Question 3** focused on whether engagement in the intervention show significant improvements in mother-child positive interaction by using both quantitative and qualitative data. **Research Question 4** addressed the changes in mothers' conception of their children from pre to post-interview. Specifically, these four research questions explored whether the mothers in the intervention group show greater improvements than the mothers in the wait-listed control group on the measured outcomes at post-intervention. Overall, this section of study findings addresses the effectiveness of the intervention.

As outlined in Section 5.1, quantitative analyses of the parenting intervention used repeated measure MANOVAs between time (pre/post) and treatment group (intervention/WLC) factors on the two sub-scales of PSOC, the Coercive Parenting and

Parent-Child Relationship sub-scales of PAFAS, the sub-scales of IT-HOME (e.g., OPTE, Stimulation, Maternal Involvement, and Emotional and Verbal Responsivity) and the sub-scales of ORS of positive interaction. This section also explores the intervention impact by analysing verbal transcripts of qualitative observations and semi-structured interviews.

The changes in mothers' sense of competence are presented in Sub-section 5.3.1. Next, Sub-section 5.3.2 represents the changes in parenting practices. Sub-section 5.3.3 presents the changes of mother-child interactions from pre to post-observation by focusing on both qualitative and quantitative data. Furthermore, changes in mothers' conceptions of their children are presented in sub-section 5.3.4. The following sub-sections present the changes between intervention and WLC mothers from pre to post on measures of quantitative and qualitative data.

5.3.1 *Changes in Mothers' Sense of Competence*

The PSOC subscales were analysed to address Research Question 1. Table 5.4 presents the means and standard deviations for the Efficacy and Satisfaction sub-scales of the PSOC. A repeated measure multivariate analysis of variance (MANOVA) was run by using time (pre/post) and treatment (intervention/WLC) factors. Here, two subscales in the pre and post-test were considered as "dependent variables" and the two groups of mothers were considered the "independent variable".

Table 5.4

Means and Standard Deviations for PSOC Sub-scales at Pre- and Post-test in the Two Groups

	Intervention (*n=37*)		WLC (*n=45*)			
	Mean (*SD*)		Mean (*SD*)			
Sub-Scales	*Pre*	*Post*	*Pre*	*Post*	*F*	*p*
Efficacy	40.49 (*5.14*)	41.76 (*4.80*)	41.47 (*3.99*)	39.44 (*5.02*)	3.27	**.043**
Satisfaction	24.92 (*6.47*)	29.11 (*6.59*)	26.87 (*6.65*)	28.22 (*6.62*)	1.34	.268

The repeated measure MANOVA showed a significant effect for Efficacy, F (2, 79)=3.27, p<.05. However, this was due to a decrease of 2.03 points in the control group rather than the small increase in Efficacy for the intervention group. The Satisfaction measure was not

significant despite a 4.19 point increase for intervention group due to a corresponding increase in the control group mothers.

5.3.2 *Changes in Parenting Practices*

The researcher addressed Research Question 2 by comparing the means and standard deviations for the sub-scales of PAFAS-Parenting and the IT-HOME. These are presented in Table 5.5 and Table 5.6, respectively. A repeated measure multivariate analysis of variance (MANOVA) was run by using time (pre/post) and treatment (intervention/WLC) factors. Here, Coercive Parenting and Parent-Child Relationship in the pre and post levels were considered as "dependent variables" and intervention and the two groups of mothers were considered the "independent variable".

Table 5.5

Means and Standard Deviation for PAFAS-Parenting Sub-scales at Pre- and Post-test in the Two Groups

	Intervention (*n=37*) Mean (*SD*)		WLC (*n=45*) Mean (*SD*)			
Sub-Scales	*Pre*	*Post*	*Pre*	*Post*	*F*	*p*
Coercive Parenting	7.32 (*3.42*)	4.70 (*3.53*)	7.33 (*3.15*)	5.91 (*3.49*)	1.27	.285
Parent-Child Relationship	2.46 (*2.95*)	1.46 (*1.98*)	1.07 (*1.39*)	2.27 (*1.59*)	8.62	**.000**

The repeated measure MANOVA had no significant main effect for the Coercive Parenting although there was a higher decrease (2.6 points) for the intervention group compared to the control group (1.4 points). As detailed in sub-section 3.4.2, a higher score on the subscale of Parent-Child Relationship indicates more dysfunctional parenting practices in the PAFAS-Parenting measures. In line with this, the differences found from pre to post-test indicated an increase in functional parenting practices for the intervention group as the intervention group scores decreased by 1 point. However, the WLC group increased by over 1 point which is likely the reason for this significant result, F (2, 79) = 8.62, p<.05. This finding demonstrates the unreliability of the measure with this study population considering the alpha for the Parent-Child Relationship sub-scale decreased considerably from pre- to post-test.

In the IT-Home measure, the sub-scales assessed home stimulation and parenting practices. A repeated measure multivariate analysis of variance (MANOVA) was run by using time (pre/post) of measurement and treatment group (intervention/WLC). In this analysis, pre/post assessment of four IT-HOME subscales, that is OPTE, Stimulation, Maternal Involvement, and Emotional and Verbal Responsivity, were considered as "dependent variables" and two categories of treatment group were considered the "independent variable".

Table 5.6

Means and Standard Deviations for IT-Home Sub-scales at Pre- and Post-Test in the Two Groups

	Intervention (*n=37*) Mean (*SD*)		WLC (*n=45*) Mean (*SD*)			
Sub-Scales	*Pre*	*Post*	*Pre*	*Post*	*F*	*p*
OPTE	5.19 *(2.09)*	6.70 *(1.90)*	4.42 *(2.04)*	5.87 *(2.24)*	2.19	.119
Stimulation	4.51 (*1.84*)	4.84 (*1.71*)	4.53 (*1.87*)	5.04 (*1.81*)	.171	.680
Maternal Involvement	5.95 (*2.35*)	7.54 (*1.64*)	5.71 (*2.12*)	7.07 (*2.10*)	.212	.646
Emotional and Verbal Responsivity	4.30 (*2.32*)	5.97 (*1.99*)	4.84 (*2.20*)	5.20 (*2.38*)	4.86	**.030**

The repeated measure MANOVA had a significant main effect for Emotional and Verbal Responsivity, F (1, 80) = 4.86, $p < .05$. This finding indicated a 1.7-point increase in the intervention group compared to a .36-point increase in the control group mothers. There were no significant main effects for the OPTE, Stimulation, and Maternal Involvement. The OPTE and Maternal Involvement measures showed more increase in the intervention rather than the control group whereas the Stimulation measure indicated a .33 increase in the intervention and a .51-point increase in the control mothers.

5.3.3 *Changes in Mother-Child Interaction*

This Sub-section presents both quantitative and qualitative outcomes.

Quantitative findings. Table 5.7 presents the means and standard deviations for the Emotional Interaction and Mediated Interaction sub-scales of the ORS of positive interaction. This sub-section addresses Research Question 3 of this study. A repeated measure multivariate analysis of variance (MANOVA) was run by using time (pre/post) and treatment (intervention/WLC) factors. Here, two subscales measured at pre and post were considered as "dependent variables" and the two groups of mothers were considered the "independent variable".

Table 5.7

Means and Standard Deviations for ORS Sub-scales at Pre- and Post-Test in the Two Groups

	Intervention (*n=37*)		WLC (*n=45*)			
	Mean (*SD*)		Mean (*SD*)			
Sub-Scales	*Pre*	*Post*	*Pre*	*Post*	*F*	*p*
Emotional Interaction	9.57 (*3.50*)	11.57 (*2.85*)	9.38 (*3.62*)	10.31 (*3.23*)	2.15	.146
Mediated Interaction	8.95 (*3.35*)	11 (*2.68*)	8.93 (*3.74*)	10.16 (*2.93*)	1.12	.294

There were no significant main effects for the Emotional Interaction and Mediated Interaction scales in the interaction of time (pre/post) and treatment (intervention/WLC) factors. Both groups demonstrated improvements from pre to post.

Qualitative findings. In addition to quantitative findings, Research Question 3 focuses on qualitative data to evaluate the effectiveness of the intervention. A 12-minute video recording of mother-child interaction (N=82) was conducted at pre and post the intervention. Verbal interactions from mother-child observations were thematically analysed: transcribing the recordings, reading through them to understand the meaning and develop general thoughts, colouring the similar texts and put them together, naming each text segment, generating themes, and further interrelating themes. This analysis was conducted by

two independent researchers; one was the main researcher, and the other was unfamiliar with this research. Both extracted similar patterns with a few exceptions. Then, they discussed and uniformly identified eight themes. The researcher refers to the numbers for each theme, that is, demonstrate positive feelings (theme 1), adapt to the child (theme 2), talk to the child (theme 3), give praise and acknowledgment (theme 4), help child to focus attention (theme 5), give meaning to the child's task (theme 6), elaborate and explain shared task (theme 7), and help child to learn self-discipline (theme 8). These themes and corresponding numbers were coded in accordance with the sequence of the same themes as the intervention protocol.

Here, the researcher first critically reports on the themes from pre to post-test for both the intervention group and the wait-listed control group. A tabular presentation of themes with example quotes is then provided for the intervention group to evaluate the effectiveness of the intervention. Finally, the concluding remarks focus on the key findings from mother-child observations.

Theme 1: Demonstrate positive feelings. This theme identified positive emotional interactions between mothers and their children. At pre-intervention, only seven mothers (out of 37) in the intervention groups engaged in positive emotional interactions whereas approximately half of the control mothers (22 out of 45) showed their love to their children. Verbal transcripts of the observations were different at post-intervention where the majority (29) of intervention mothers demonstrated positive feelings. In contrast, 29 control mothers made comments that reflected their positive feelings to the children a bit higher in the post-test than in the pre-test.

Theme 2: Adapt to the child. In the pre-test, eight mothers in the intervention group made comments about adapting to their children in the pre-test compared to 19 mothers in the post-test. In contrast for the control group, 13 mothers in the pre and 18 mothers in the post-test made comments that reflected adapting to their child. The researcher identified that the mothers commented about theme 2 in terms of adjusting to their children's requirements and following their cues or signals during observations.

Theme 3: Talk to the child. This third theme primarily focused on exchanging emotional dialogues between mothers and their children. The mothers' comments about this theme reflected talking to their children, reciting rhymes and poems, singing songs, telling stories, and sharing personal childhood memories. The changes of intervention groups (pre=14

and post=31; out of 37 mothers) were higher than the control groups (pre=20 and post=31; out of 45 mothers).

Theme 4: Give praise and acknowledgment. The fourth theme was giving praise and acknowledgment to the child's accomplishment. A noticeable improvement was found in the intervention groups where two mothers in the pre and nineteen mothers in the post-test made comments that reflected this theme. Moreover, intervention mothers could identify the specific activities of their children for which the children were given praise; for example, "See, how nicely he plays ball" (post/intervention; ID 48). Before attending the intervention, the mothers gave only general praise to their children, i.e., "good", "nice", "very nice". In the control groups, three mothers in the pre and eight mothers in the post observation made comments that reflected theme 4.

Theme 5: Help child to focus attention. An improvement from pre to post was observed for intervention mothers, that is 25 to 32 mothers, in the fifth theme. In contrast, 37 control mothers in the pre and 33 control mothers in the post observation made statements that reflected this theme. The mothers made statements that reflected two types of strategies while they were helping children to focus their attention. One strategy was diverting children's focus to other objects or tasks for getting their attention. Another strategy was involving the child's current activity to gain their attention. The intervention groups were more engaged in attending the child's activity for gaining attention in comparison to the control mothers.

Theme 6: Give meaning to child's activities. Both intervention and control mothers showed the same rate of improvement, that is 14 points, from pre to post for the sixth theme. From 12 (pre) to 26 (post) intervention mothers made interactions related to this theme whereas from 15 (pre) to 29 (post) control mothers gave meaning to the children's activities.

Theme 7: Elaborate and explain a shared activity. Twenty-six intervention mothers in the pre and thirty mothers in the post observation elaborated and explained their joint task to the children. Therefore, a small improvement was seen in the data of intervention mothers whereas a decline showed for control mothers (32 in the pre and 25 in the post) in the seventh theme.

Theme 8: Helping child to learn self-discipline. Mother-child interactions were observed and identified whether the mothers were helping their children to learn self-regulation by controlling behaviour, setting positive alternatives, and scaffolding. Intervention mothers

showed the higher change from pre (n=12) to post (n=22) whereas control mothers indicated a very low improvement from pre (n=13) to post (n=15).

Overall, the first four themes denoted emotional interactions between mothers and children. That means, the mothers made comments that reflected emotional expression, adaptation, and acknowledgment to the children. In turn, their children also learned how to express themselves and were encouraged to be involved in the joint activities as a result of maternal acknowledgment. Moreover, the last four themes represented mediation-based interactions. The mother acted as a mediator for assisting her child to reach developmental potential. The 5th, 6th, and 7th themes were specifically identified as mother-child meaning dialogues through which the child received his or her understanding about the surroundings. Furthermore, the 8th theme was helping the child to become self-independent by regulating their own behaviour. Table 5.8 overall presents the themes and example quotes from the observations of mother-child interaction.

Table 5.8

Identified Themes from Mother-Child Interactional Observation and Its Example Quotes

Themes	Example quotes (Identification code)
Theme 1: Demonstrate positive feelings	The child [daughter] was showing tantrum repeatedly. The mother was talking to her daughter gently with smiling face throughout the observation. (ID 33)
Theme 2: Adapt to the child	When the child [son] grabbed a colour crayon and scribbled it onto the picture book, the mother immediately gave him a drawing notebook. (ID 26)
Theme 3: Talk to the child	The mother was relating their last visit to the zoo while they were looking at animals from the picture book. (ID 110)
Theme 4: Give praise and acknowledgment	Wow! Your drawing is very nice, nice. (ID 44)
Theme 5: Help child to focus attention	The mother was diverting child's attention to a toy yellow duck [for focusing child's attention in playing]. The child immediately grabbed the duck and pointing to its eyes. (ID 72)
Theme 6: Give meaning to the child	The child showed her interest to her sister's alphabet picture book. The mother also joined her in acting out the story that is, playing of elephant and rat together. (ID 72)
Theme 7: Elaborate and explain a shared event	Mother and daughter were jointly cooked rice. The mother showed and described to her how to make the rice step-by-step and how to carefully filter the boiled rice water. (ID 53)
Theme 8: Help child to learn self-regulation	The mother guided her daughter while drawing. She said, "Please draw more here…do more colour on this side". When the child wanted to have the colour crayons, the mother made her understand by saying, "You are big enough now…You understand. These are aunt's [data collector] colours. You have to return it…" (ID 128)

To recapitulate, the researcher identified all these above-mentioned themes from the content of all observational data. Interestingly, there was comparatively higher usage of all themes at pre-test for the control mothers than their counterpart. The post data consistently showed an upward trend of applying all themes for intervention mothers. Specifically, the researcher identified a higher difference of pre-test score between intervention and control group in theme 1 (7 mothers in intervention and 22 mothers in control) and theme 5 (25=intervention and 37=control). Similarly, a lower difference of pre-test between two groups was found in theme 4 (2=intervention and 3=control) and theme 8 (12=intervention and 13=control). Overall, the summary of this mother-child observation is presented in Box 1.

Box 1

Highlights of Mother-Child Positive Interaction Findings

- In general, the qualitative findings identified the existence of all eight themes of ICDP in both intervention and control groups at two points of measurement.
- Comparatively, a considerable number of intervention mothers, ranged from 19 to 32 mothers, commented about the ICDP eight themes at post-test level.
- In contrast, a small change from pre (less) to post (more) was revealed while wait-listed control (WLC) mothers made comments about these themes, except in theme numbers 5 and 7.
- More specifically, a decrease at post-test was found for WLC mothers in case of "focusing child's attention" (Theme 5) and "explaining shared activities" (Theme 7).

5.3.4 *Changes in Mothers' Conceptions of their Children*

This sub-section addresses the Research Question 4, that is, "what changes are found in the mothers' conception of their children due to attend the intervention?" For examining this question, the researcher assessed the mothers' perceptions towards their children. A semi-structured interview was conducted with mothers (N=82) of both intervention (n=37) and control (n=45) groups at pre and post-test intervention. The guided questions of this interview were: As a mother, can you tell me how your child is? and which qualities do you

see in your child? Overall, the data collector was instructed to note down the mother's spontaneous description of the child.

The interviews were analysed thematically. The process of analysis was transcribing audio-recorded interviews, repeatedly reading though them, identifying key points and writing them, colouring the similar key texts, naming each segment of the text, printing them out for further checking, generating themes and further interrelating them. First, the main researcher focused the analysis in two ways: Child development and parenting competency/skill. To control for any unconscious bias on the part of the main researcher, another two independent researchers who were unaware about the research purpose also analysed these interviews. Both of them focused on child developmental areas to finalise the themes. Consequently, the researcher identified two categories of comments that reflected positive and negative conceptions.

Positive conceptions of the child. Positive themes were comprised of "general descriptors of the child", "motor activity", "socio-emotional relationship", and "cognitive functioning". The detailed findings of each sub-theme under positive categories are presented below. Table 5.9 gives an overview of extracted themes of positive categories along with some example quotes of the mothers.

Theme 1: General descriptors of the child. Both intervention and control mothers commented on some general descriptors of their children. These descriptors helped to recognise children's unique behavioural characteristics. Before attending the training, 15 intervention and 17 control mothers commented on the general behavioural characteristics of their children. After the intervention, fewer intervention mothers (n=12) commented on the general descriptors of children compared with control mothers (n=31). Thus, the intervention mothers placed more emphasis on developmental aspects of children in the post-interview.

Theme 2: Motor activities. The mothers had a positive conception about their children's gross and fine motor abilities. Eighteen intervention mothers commented on children's motor activities in the pre interview which increased to 24 mothers in the post-interview. On the other hand, 37 control mothers talked about children's strengths on motor activities in the pre interview and 23 mothers commented on motor strengths in the post interview.

Theme 3: Socio-emotional relationship. Social skills and emotional development in building relationships were two aspects of perceiving children. In the intervention group, the

same number of mothers (n=22) made comments that reflected this theme in the pre and post interview. In contrast, a total of 20 control mothers made comments that reflected this theme in the pre interview and 21 mothers in the post interview commented about children's socio-emotional aspects.

Theme 4: Cognitive functioning. Communication, language, and exploration to learning were conceptualised in this theme. In the pre interview, the mothers in the intervention group (11) commented less on children's cognitive functioning compared with control mothers (35). With respect to post interview data, a total of 21 intervention mothers made statements reflecting this theme whereas 28 control mothers conceived their children's developmental outcomes in terms of language, exploration and interest towards learning, and communication skills.

Table 5.9

Extracted Themes from Mothers' Positive Conception of Children along with Example Comments

Themes	Example comments (identification code)
Theme 1: General descriptors of child	1. My child is quiet and calm. (ID 79) 2. My daughter is humble to everyone. (ID 33) 3. My son is very stylish and trendy. When he is going out, he wears nice shirt-pants with matching shoes. (ID 6)
Theme 2: Motor activities	1. My son is very good in cycling. (ID 101) 2. The child [son] is very much active; for example, running and jumping all day. (ID 1) 3. The child fetches necessary utensils [bowl, spoon] and groceries [onions, soyabean oil, potatoes] from our room to the kitchen while I [mother] am cooking. (ID 125)
Theme 3: Socio-emotional relationship	1. My son can socialise with everyone. (ID 63) 2. The child does religious rituals; for example, going to the mosque for prayers. (ID 6) 3. My child has a good relationship with me. (ID 89)
Theme 4: Cognitive functioning	1. The child is creative in making dolls. (ID 128) 2. When my daughter is hungry and thirsty, she can request her needs to me [the mother]. (ID 107) 3. My son shows curiosity towards anything. (ID 1)

Negative conceptions of the child. The mothers reported "aggressive behaviour", "non-compliant behaviour", and "health issues" as negative conceptions. The researchers analysed these negative data in the same way as positive conceptions. Only control mothers talked about negative conceptions of their children relating to health issues in the pre and post interview. Some example quotes of health issues were "the child is physically weak and fallen sick most of the

time" (ID 51) and "the child cannot walk properly" (ID 31). The researcher did not find any health relevant comments from the intervention mothers. Therefore, the researcher did not consider the health issues as a separate theme. The detailed findings of aggressive and non-compliant behaviour under negative categories are presented below. Afterwards, Table 5.10 provides some example quotes to understand these themes precisely.

Theme 1: Aggressive behaviour. Disruptive behaviour of children was included in this theme. A total of 15 intervention group mothers and 14 mothers in the control group made comments reflecting this theme in the pre-test. After participating in the intervention, only eight intervention group mothers commented that they perceived their children as doing aggressive behaviour. In contrast, a total of 15 control mothers continued to comment about children's aggressive behaviour at post interview. That means, there were almost the same number of mothers who talked about children's disruptive behaviour as in the pre interview while numbers declined for the intervention group.

Theme 2: Non-compliant behaviour. This theme indicated behaviours in which children went against the parents or adults. Eight intervention and ten control mothers talked about this theme in the pre interview. Thus, almost the same number of intervention and control mothers commented on children's non-compliant behaviour before the intervention. Only one intervention mother mentioned this theme in the post interview. In contrast, a higher number of control mothers (n=25) described their children in light of this theme in the post interview.

Table 5.10

Extracted Themes from Mothers' Negative Conception of Children along with Example Comments

Themes	Example comments (identification code)
Theme 1: Aggressive behaviour	1. She is very naughty. She throws household items into sewerage drains and is sometimes throwing them to others. (ID 44) 2. My son is fighting with other children during play time. (ID108) 3. She [the child] bites and scratches other children. (ID93)
Theme 2: Non-compliant behaviour	1. My son does not listen to the adults. (ID 47) 2. He [the child] does toilet inside the room. He does not listen to me at all. (ID 92) 3. My child makes the room messy and untidy. (ID 115)

Some pre/control mothers were talked about children in a same way. These examples were: "the child is very much quarrelsome" (ID31, ID73, ID102, ID109), "she is very demanding

all the time. If I cannot give her the things, then she keeps showing so much stubbornness" (ID9, ID11, ID27,…ID103), and "the child bangs on his head when he cannot get his demanding things" (ID28). All these negative characteristics were also reported by the control mothers in the post interview. That means, control mothers continued to conceive their children with negatives.

Overall, the mothers mostly showed their positive perceptions towards their children in accordance with their developmental areas. Their perception was also influenced by the cultural norms and values, for example, "the child can imitate her mother and wearing hijab (hair wrapped by the scarf)", "showing respect to the elders". Some mothers defined their children as intellectual and brainy where some of them conceptualised them as moody, sympathetic, cheerful, and/or cool-temperament. On the other hand, most post/intervention mothers reported some minor (non-compliant) behavioural issues of their children, such as not being interested in having a meal, not being interested in getting sleep. A few mothers of post/control group were also worried about their children's physical weakness.

Therefore, after attending the ICDP training, the intervention mothers commented more on children's strengths in terms of motor, socioemotional and cognitive functioning rather than their negative behavioural characteristics. As time elapsed, control mothers were more stated about children's general descriptors and negative behaviours than their developmental strengths.

5.4 SUMMARY AND CONCLUSION

This chapter has analysed and presented both quantitative and qualitative findings of the study. A detailed data analysis plan was introduced at the beginning of this chapter. Then, the preliminary analyses were presented and addressed issues such as missing values, reliability coefficients of the measurement scales, and checking of the MANOVA's assumptions. The researcher used most of the measures with caution as they had relatively low internal consistency. After that, the researcher examined the effectiveness of the intervention by using both quantitative and qualitative data.

Quantitative measures were analysed to see the changes from pre to post between the intervention and wait-listed control group mothers. The results overall showed that the repeated measure MANOVAs had significant main effects for very few measures, that is the Efficacy subscale of the PSOC, the Parent-Child Relationship subscale of the PAFAS, and the Emotional

and Verbal Responsivity subscale of the IT-Home. However, the findings with respect to the Efficacy sub-scale of PSOC are likely due to a decrease in the control group mothers rather than an intervention effect. The results identified functional parenting practices in both Coercive Parenting and Parent-Child Relationship sub-scales of PAFAS-Parenting measure. Though the Parent-Child Relationship measure had a significant effect in the MANOVA, the measure was found to be unreliable with this study population as alphas considerably decreased from pre- to post-test. Moreover, the Emotional and Verbal Responsivity sub-scale of the IT-HOME had a significant effect whereas the OPTE, Stimulation, and Maternal Involvement did not have any significant effects due to improvements from pre to post for both intervention and control groups. Similarly, the quantitative findings indicated no intervention effect in the ORS of mother-child interaction. These mother-child interaction videos were also analysed qualitatively.

In mother-child play observation, the researcher found that mothers in the intervention groups frequently practiced the eight ICDP positive interaction guidelines in the post-test in comparison to the control groups. Furthermore, the mothers' conception towards their children were positive in intervention group whereas control groups expressed more negatives with respect to their children. Their positive conceptions were categorised as general descriptor and specific strengths of developmental areas such as motor, cognitive, and socioemotional functioning. In the case of children's abilities, the intervention mothers identified their physical, socioemotional and cognitive strengths more in the post than in the pre interview. In contrast, the control mothers identified children's aggressive and non-compliant behaviour more in the post interview.

To sum up, the researcher could conclude that the qualitative data were important for this study. This was because, qualitive observations helped to understand the pattern of mother-child interactions in the underprivileged context. Mothers' semi-structured interviews revealed how differently intervention and control mothers conceived their children. It also could be said that the quantitative data were not very usable for evaluating the effectiveness of the intervention. The qualitative data provided some insights into possible intervention effects. Taken together, however, it is not clear if the intervention was effective. Group data, whether quantitative or qualitative, may obscure individual differences within the sample. In such circumstances, the researcher thought it important to examine individual cases, focusing in particular on the features

that distinguished mothers who appeared to benefit the most from the intervention compared with those who benefitted the least. The following chapter presents those individual case studies.

Chapter 6: Individual Case Studies

What characteristics distinguishes mothers who benefitted the most from the intervention from those who benefitted the least? This broader research question is addressed throughout this chapter. The chapter presents individual case studies to illustrate the changes that occurred for the mothers in terms of their parenting practices. The cases are discussed in-depth because the quantitative and qualitative data analysis at the group levels may have obscured changes at the individual level. As discussed previously (see Section 4.2) the quantitative measures, in particular the PSOC, PAFAS, and IT-HOME measures, did not appear to be reliable in this study with low alpha values. The qualitative data was also insufficient on its own as it did not supplement all quantitative measures for data triangulation. The low reliability of the quantitative measures and the lack of robust qualitative data indicated that there may be value in developing case studies. Therefore, this section demonstrates proof of concept, that is, the International Child Development Program (ICDP) intervention appears to have worked for some mothers. Analysis of the individual case studies involved both the quantitative (PSOC, PAFAS, IT-HOME, and ORS of positive interaction) and qualitative data (observation and interviews). Initially, the mothers were selected as case studies from the intervention groups based on their responses on the quantitative measures. Then, qualitative observation and interview data, in particular mothers' feedback about the intervention experience, were used by the researcher to select individuals in this case study chapter.

The researcher found 12 cases who improved from the intervention. A total of 18 cases exhibited improvements on half of the measures and got worse and/or remained same on the other measures. Furthermore, the researcher identified seven cases who not only did not improve but also scored more poorly on most of the measures following the intervention. For this chapter, the researcher selected six mothers who benefitted most and another five mothers who did not appear to benefit from the intervention. The individual case study analysis highlights a comparative and deeper understanding of the mothers' perceived benefits from the intervention. Moreover, it illustrates the parenting differences between pre and post-test due to the ICDP intervention. The researcher used pseudonyms in representing each case to ensure confidentiality. Table 6.1 provides the means of difference from pre to post measuring data for the intervention groups.

Table 6.1

Comparison of Mean of Difference from Pre to Post-Measurement for Mothers Exhibiting Improvements, Declines and No Change after Intervention

Scales	Sub-scales	Cases with improved scores (n= 12) $\bar{x}$ (SD)	Cases with poorer scores (n=7) $\bar{x}$ (SD)	Cases whose scores did not change substantially (n= 18) $\bar{x}$ (SD)
PSOC	Efficacy	4.83(4.20)	-4.29 (5.25)	1.06 (6.51)
	Satisfaction	6.08 (5.07)	-1.57 (8.38)	5.17 (8.03)
PAFAS	Coercive Parenting	-4.67 (3.06)	.43 (5.26)	-2.50 (4.03)
	Parent Child Relationship	-1.75 (1.815)	-1.00 (2.820)	-1.11 (3.56)
IT-HOME	Organisation of Physical and Temporal Environment (OPTE)	.50 (2.84)	-1.00 (2.16)	.17 (2.53)
	Maternal Involvement	2.17 (1.40)	.57 (1.51)	1.61 (2.83)
	Stimulation	.25 (1.91)	.43 (1.62)	.33 (1.88)
	Emotional and Verbal Responsivity	2.75 (2.83)	.71 (2.50)	1.33 (2.45)
ORS(Positive Interaction)	Emotional Interaction	4.42 (2.47)	-.71 (2.69)	1.44 (2.31)
	Mediated Interaction	4.42 (2.84)	.71 (3.35)	1.00 (3.16)

Note. PSOC = Higher score indicates higher parenting sense of competence; PAFAS = Higher score indicates dysfunctional parenting adjustment skills; IT-HOME = Higher score indicates better home stimulation and parenting practices; and ORS = Higher score indicates quality positive interaction between mother and child.

All individual cases lived in the underprivileged slum area with overcrowded and unhygienic living conditions. Their monthly household incomes varied from BDT 5,000 to BDT 20,000, which represented to most of them as being poor, except for one family which received the highest monthly income for a member serving in a "senior" job position as a cleaner in a government organisation. However, the socioeconomic status of that family was lower-middle class. According to the latest survey, the average monthly household income of a Bangladeshi was BDT 15,988 and poverty was measured by estimating the cost of their basic needs. That means, the poor households were those whose total expenditures were equal to the cost of basic needs that is food and non-food (BBS, Statistics and Informatics Division [SID], & Ministry of Planning, 2019). Table 6.2 presents a summary of the demographic information for the groups of mothers who benefitted the most and those who benefitted the least.

Table 6.2

Summary of the Demographics between the Most Benefitted and the Least Benefitted Mothers

Groups	Cases	Age	Birth Place	Schooling Experience	Occupation	Total Children	Target Child			Monthly Income (BDT)	Family Structure	Attended Sessions
							Age	Sex	Birth Order			
Most Benefitted Mothers	Maria	21	Urban	9 Years	Housewife	1	2	Female	First	10,000	Nuclear	8
	Zakia	21	Rural	3 Years	Shop-Keeper	2	3	Female	First	12,000	Extended	8
	Tania	21	Rural	8 Years	Housewife	1	3	Male	First	20,000	Nuclear	7
	Hasina	27	Urban	No	Day Labourer	4	1	Female	Fourth	15,000	Nuclear	8
	Rahima	35	Rural	No	Cleaner	3	2	Male	Third	20,000	Nuclear	8
	Maleka	26	Rural	5 Years	Housewife	2	1	Female	Second	15,000	Nuclear	6
Least Benefitted Mothers	Shirin	25	Urban	No	Housewife	3	1	Male	Third	5,000	Nuclear	7
	Sadika	18	Urban	5 Years	Housewife	1	1	Male	First	5,000	Extended	7
	Monira	30	Rural	No	Maid/Housekeeper	1	3	Male	First	6,000	Nuclear	7
	Minara	18	Urban	8 Years	Housewife	1	1	Male	First	8,000	Extended	7
	Zinat	35	Rural	8 Years	Housewife	4	3	Female	Fourth	14,000	Extended	7

The researcher represents this chapter in two sections: case studies of mothers who benefitted the most (Section 6.1) and case studies of those mothers who benefitted the least (Section 6.2). Table 6.3 summarises the quantitative measures of these mothers who were selected for the case studies. Each section presents background information of the individual cases and then analysis of their findings. Section 6.3 highlights a substantial analysis between mothers who benefitted the most and those the least. Finally, an overall summary with concluding remarks is presented in Section 6.4.

Table 6.3

Summaries of the Quantitative Findings of Mothers Who Benefitted the Most and Those the Least

Scales/Sub-scales	Mothers benefitting the most												Mothers benefitting the least									
	Maria		Zakia		Tania		Hasina		Rahima		Maleka		Shirin		Sadika		Monira		Minara		Zinat	
	Pre	*Post*	*Pre*	*Post*	*Pre*	*Post*	*Pre*	*Post*	*Pre*	*Post*	*Pre*	*Post*	*Pre*	*Post*	*Pre*	*Post*	*Pre*	*Post*	*Pre*	*Post*	*Pre*	*Post*
PSOC/Efficacy	42	47	40	47	25	35	39	44	45	47	37	40	45	41	44	28	41	40	47	45	37	34
Satisfaction	15	28	23	28	44	47	23	26	28	40	35	29	24	24	28	21	32	20	19	27	23	28
PAFAS/Coercive Parenting	13	2	14	9	10	7	9	2	4	0	8	1	5	9	5	4	6	0	9	14	5	9
Parent-Child Relationship	0	0	3	2	2	0	3	2	1	2	6	2	1	1	0	0	4	1	1	1	2	8
HOME/OPTE	7	7	5	8	10	11	7	9	9	8	10	7	4	4	6	6	7	8	5	3	7	5
Stimulation	3	4	6	3	4	3	8	6	5	7	5	5	5	5	4	5	4	3	2	3	3	4
Maternal Involvement	4	7	2	5	4	6	5	9	7	9	7	10	8	7	6	8	8	6	6	7	5	7
Emotional/Verbal Responsivity	5	8	2	6	4	8	2	6	7	5	2	3	6	8	3	7	6	3	6	5	2	5
ORS/ Emotional Interaction	8	14	8	15	7	13	10	12	4	11	4	11	12	10	15	10	9	7	8	8	5	7
Mediated Interaction	8	13	8	14	6	14	8	12	5	12	7	12	7	7	15	12	10	7	7	8	3	9
ORS/Intervention Participation	Average score (out of 5)																					
Interest	4.75		4.5		4.71		4.5		4.13		4.5		4.14		3.43		4.14		3.71		3.29	
Active	5		4.38		4.86		3.88		4.5		4.33		4.43		3.86		4.14		3.71		3.29	

Note. Duration between pre-test and post-test was 2 months 2 weeks, actual intervention period was 8 weeks. PSOC= Higher score indicates higher parenting sense of competence; PAFAS = Higher score indicates dysfunctional parenting adjustment skills; IT-HOME = Higher score indicates better home stimulation and parenting practices; and ORS = Higher score indicates quality positive interaction between mother and child.

6.1 CASE STUDIES OF MOTHERS WHO BENEFITTED THE MOST FROM THE INTERVENTION

This section reports the quantitative and qualitative findings of the six mothers who benefitted the most from the intervention. Four mothers attended all eight sessions of the intervention whereas one mother missed the 5th session and another mother did not attend the last two sessions of the intervention. Four target children were females and two were males. Two mothers were brought up in urban areas whereas four mothers migrated from rural areas. The specific demographics of each case are briefly mentioned (see also Table 6.2) along with their findings. The summary of all quantitative findings of the six benefitted mothers presents in Table 6.3.

Case 1: Maria

Maria was a 21 year old mother who was brought up in an urban area of Bangladesh. She had nine years of schooling experience. This mother was a housewife and the father was a cleaner. They had only one daughter, aged two years. They had a nuclear family with three family members. Their monthly income was BDT 10,000 that was below the average monthly household income in the context of Bangladesh (see the paragraph after Table 6.1). She attended all eight sessions of the intervention.

With respect to the changes from pre to post-intervention, Maria consistently reported improvements on all quantitative measures. An exception was the IT-Home measure where she remained same on the "organisation of physical and temporal environment". This mother reported comparatively higher progress in the parenting satisfaction and avoiding coercive practices in Table 6.3.

More specifically, Maria improved her parenting sense of satisfaction by acknowledging accomplished work, staying in control, and being a more focused parent. This mother's way of consoling her child in the qualitative post-interview indicated her power of control over the situation and talent as a parent. In the coercive practices, Maria demonstrated remarkably improved childcaring approaches in the quantitative measures by making her daughter to understand the situation and directing her towards appropriate behaviour. In pre-observation, this mother raised her voice to the child (shouting) while she was fighting with

another child. Improvements in her parenting practices were identified in the post observation where the mother took up the crying child on her lap and told her how much she loved her.

In the observational rating scale, Maria showed progress in both emotional and mediated related interactions. Maria's improvements were specifically observed in her sensitivity to the child and guidance towards learning self-discipline. In connection with Maria, the child was more responsive and obedient towards her mother's instructions in the post-test.

Qualitative observation and interview findings of Maria are presented here for an understanding on the changes after the intervention. The observational transcript of this mother-child interaction in the pre-test was:

> *The mother gave different toys in the child's hand. She was playing…. The mother then turned over the pages of the picture book and showed pictures of a cat, a cow and a dog. The child looked at the pictures and imitated sounds of animals. After a while, the child turned her attention towards other children…*

Here, the mother was focused and tried to be involved with the child. Maria was focusing her attention on the child by using a diversion technique. Though the child continuously followed her mother's instructions, she did not receive any praises that might have shifted her attention towards other children.

This mother-child interaction was observed again in the post-test period. Some excerpts are mentioned hereunder.

> *The mother and the child were playing with toys and picture book…The mother asked the child, "What is it?" (Indicating at a toy bird). The child could not answer. Then, the mother taught her about the bird. They started to play with the bird. Again the mother asked the child, "What it is?" (Indicating at a toy dog). The mother put the toy dog on a car and showed how to play. The mother said to the child, "You play, dear". Then the mother, indicating at a toy doll, said, "This cute doll is look like my child [calling by her name]". The mother showed her how to adore the doll.*

Maria was more interactive and more involved with the child in the post-test observation session. The mother did not show any coercive practice with the child when she did not give any response regarding the toy bird. Rather the mother showed her patience towards the child. She demonstrated some of the intervention themes, such as: adapting to the child, understanding her level of cognition, giving meaning to the playing material, and describing the toy bird's features and functions. Throughout the session, the mother showed different toys and talked about them. This observational excerpt also demonstrated positive interaction between the mother and daughter. Maria was affectionately uttering the child's name and praising her which was not seen in the pre-observation. Therefore, the child was smiling, happy, and responsive towards the mother.

In both observations, the mother played her role actively and tried to make the child happy, be focused and responsive. The mother used more variations in her instructions and activities in the post-test compared to that in the pre-test. Such variations helped the child focus and respond to the activities in the post-observation. In line with the quantitative measures, Maria showed gradual improvements in the post-observation play by demonstrating the ICDP themes.

From the pre-test interview, the researcher identified Maria's perception and how she described her daughter before attending the intervention. Her pre-interview excerpt was as follows:

> *My child performs daily activities (having meal and sleeping) timely. She is usually playing with toys all day long. She has had meals on her own. She likes to play video games on the mobile phone. She very much enjoys and claps whenever I [the mother] sing songs or recite rhymes for her.*

In this segment, the mother describes her daughter by identifying strengths and likings. In particular, the responsive behaviour of the child towards her mother was also outlined as an impact of mother's interaction. Maternal satisfaction was also highlighted by this statement, "*I feel really proud when my child calls me 'Ammu'".*

The changes in the mother's perception towards her daughter were identified through her post-interview statements, which are stated below. Here, the mother could recognise not only her strengths/likings but also her cognitive and social domains of current development.

> *My child usually plays with balls, dolls, and kitchen sets. She likes songs, rhymes and dances. She understands my instructions and socialises with everyone. She can imitate and learn from adults (brushing teeth, religious activity-Salat). She can remember relatives' names.*

Overall, both interview findings identified that the mother had positive conceptions towards the child. In particular, she talked about her ability to calm the child down in the post-interview. Such an improved capacity of understanding her child reflected the positive parenting awareness generated due to attending the intervention.

As a part of Maria's intervention experience, she gave her feedback about her likings (mostly activities i.e., videos and drawings during the sessions and content i.e., talking, adapting, conducting self-help at the end of intervention) and learnings (mostly content-focused i.e., showing love, adapting, talking, praising, teaching self-regulation, and sensitising the child) from the intervention. This mother did not face any particular difficulties during the sessions. Most significantly, Maria had *changed some aspects of her childcaring* such as, avoiding scolding/punishment, telling stories/rhymes, and learning to console the child. In addition, this mother mentioned playing with her child, telling fairy tales, and showing love as *the techniques that she learned from the intervention*. She also commented about the facilitator's competency. When she could not understand any topic, the facilitator explained it to her and made it understandable.

As a result of the intervention, her childcaring aspects and parenting techniques demonstrated improvements in parenting satisfaction, avoiding coercive parenting, positive parent-child relationship, and maternal involvement. In the post qualitative observation, the researcher identified this mother as being more affectionate and creative while motivating the child into taking up drawing activities. She could recognise her daughter's strengths in the post interview of mother's conception towards child. Consequently, the child became adaptive, interactive, and self-disciplined. Overall, her intervention experience was consistent with the

quantitative data in a sense of improved parenting practices that in turn indicated the child's positive behavioural outcome.

By further exploring Maria's intervention experience, the researcher identified this mother as being attentive towards the child and interested on learning about childcaring. Such enthusiasm encouraged this mother to attend all parenting sessions and reflect on discussion. Though the researcher found her parenting quality to be harsh at the beginning of the intervention, she noticeably improved at the end of the intervention. Maria used the newly learned parenting strategies with the child that reflected her qualities of being sensitive and adaptive towards the child.

Case 2: Zakia

Zakia was a 21-year-old mother who was brought up in a rural area of Bangladesh. She had only three years of schooling experience with counting and signature skills that helped her run a small grocery shop. She had two children, among whom the research target child was the first issue, a 3-year-old girl. The father had a government job as a cleaner. Their monthly family income was below the average, BDT 12,000, and they had to maintain an extended family comprising six members in total. Therefore, this family was very poor and belonged to the lower socioeconomic group. Zakia attended all eight sessions of the intervention.

Zakia showed improvements on the quantitative measures, except "stimulation" of the IT-Home. She indicated good progress in parental efficacy, satisfaction, avoiding coercive practices, emotional and verbal responsivity, and positive interaction (see Table 6.2). In the observational rating scale of positive interaction, this mother performed well with her daughter in terms of understanding the child's cues, talking to her, accepting and praising, engaging with her activities, and guiding her to learn self-discipline. Similarly, the child showed obedience and responsiveness to the mother in the post-test compared to that in the pre-test.

Qualitative observation and interview findings for this mother are presented here to understand her changes from pre to post-intervention. The observational excerpts in the pre-test were:

The mother and the child were playing with toys and crayons. The mother held the child's hand and helped her to draw a flower… Then mother told her child to play with the toy utensils and spoon… The mother told her child to make bread for her. Then the mother threw the ball to her child and then the child threw it again to her mother. Then, the mother gave a car to the child. The child was making the sound of a car engine.

In pre observation, the mother was more directive towards the child. The researcher merely observed Zakia's involvement with her daughter. In the middle of the observation, she also went away for a while. Most of the time she was in a hurry and impassive. This mother and child were observed again in the post-test. Some excerpts are mentioned hereunder.

During play, the mother showed a toy horse to the child and said, "What is it?" The mother said, "It's a horse" [the child was playing with the horse]. Then both were playing with utensils and pretended to cook. The mother asked, "What are you cooking?" The child answered that she was cooking eggs. Then the mother told the child to feed her that egg. The child fed her mother and in turn the mother also fed her with a smile...

Here, the mother was much more involved with the child. Zakia gave meaning to the child, showed how to cook, and inspired the child to get involved in cooking that represented improved parent-child relationships, positive encouragement, and mediation-focused quality interaction. She also acknowledged the child's activity by feeding her. She was smiling most of the time and in turn the child was mostly compliant and responsive to the mother. Her improvements in the post-observation were consistent with her quantitative outcomes.

In sum, Zakia was more active and participatory in the post-observation. She understood the child's areas of interest. Therefore, she could capture the child's interest and attention from the beginning to the end due to her regular attendance at the intervention. In contrast, her robotic instructions and uninvolved attitude in the pre-observation was a barrier to gaining the child's interest.

The researcher identified Zakia's perception and description about her daughter before attending the intervention. Her pre-interview excerpts were as follows:

> *When my child does some cute naughtiness with her father I like it most... I would be happy if she had her meals on her own… I do not like her stubbornness and naughtiness. I do not tolerate and cannot control my anger when my child violates my command.*

The changes in the mother's perception towards her daughter were identified through her post-interview statements:

> *I like it when my child plays with her sister and obeys my words. I like it when she learns whatever I teach her. When my child uses any slang with her friends, I immediately stop her from doing so by explaining that it is not a good behaviour.*

This mother, Zakia, described her child's weaknesses, her likings about the child, and her coercive attitude towards the child in the pre-interview. Zakia showed parental expectations that led her to feel irritated and resort to harsh parenting. In the post-interview, this mother specified about child's strengths and her parenting changes from being coercive to becoming more rational and adaptive towards the child. Thus, the interview findings reflected the changes of parenting strategies and skills as a result of the intervention.

In case of intervention experience, Zakia gave her feedback in two phases: Feedback of individual sessions and feedback at the end of the intervention. She *liked* both activities (drawing, videos, symbolic play, praising activity) and content (childcaring strategies, avoiding coercive parenting, and following child's needs) of the intervention. These contents were also mentioned as Zakia's *most important learnings from the intervention*. This mother did not give any significant reply about *facing difficulties* during the sessions. Most significantly, Zakia had *changed some aspects of her childcaring*; for example, she used a mobile phone and television for letting the child listen rhymes and watch cartoons during meal times instead of using harsh parenting. This mother also asked about *the techniques she used on learning from the intervention*; for example, showing respect to the child, adapting to the child, and behaving well with the child.

In short, Zakia's intervention experiences were similar to her quantitative measures as a consequence of her improved parenting sense of competence, maternal mediation, and positive mother-child interactions. This mother described her daughter by identifying strengths and used positive alternative techniques instead of coercive parenting in the post-interview. In line with the improvement, Zakia prioritised her child's interests and focused her attention on the task by attending to the direction throughout the observation. The child, in turn, listened to the mother and showed her interest during this post-observation.

Furthermore, the researcher identified Zakia as attentive and interested towards the intervention activities and content. She was more participatory as the sessions continued from the first day to the last day. By analysing the reflection and homework of the sessions, it was understood that she was caring and optimistic towards the child. Overall, Zakia's experience of the intervention indicated her improvements in childcaring and quality parent-child interaction.

Case 3: Tania

This mother was a 21-year-old who was brought up in a rural area of Bangladesh. She had eight years of schooling experience. She was a housewife. She had only one child, the research target, who was a 3-year-old boy. The father was a cleaner. Their monthly income was BDT 20,000 with which they had to maintain a nuclear family comprising three members. Tania missed the 5th session of the intervention and attended the rest of the sessions.

Tania showed improvements on all quantitative measures, except "stimulation" of the IT-Home. Comparatively, she indicated a good improvement in parenting efficacy. This mother reported functional parenting practices, such as avoiding coercive parenting and positive parent-child relationship. This mother significantly interacted with her son in terms of improved understanding and sensitivity, talking, and engaging with activities under the observational rating scale. Similarly, the child was much more responsive to the mother from pre to post-test.

Qualitative observation and interview findings for this mother are detailed here for an understanding of her changes from pre to post-intervention. The observational excerpts of this mother-child interaction in the pre-test were as follows.

> *Both mother and child were sitting on the floor and playing with a big toy car. He acted like he wanted to make the car get into a mock accident with his mother. The mother shouted at the child for playing with the car on the bed. The child listened to his mother and went on to play with the car on the floor. The mother watched something on the smartphone, then kept it beside her and again asked him to play with the car.*

In this segment, the mother directed the child where to play. She was not that much attentive to the child's activities. However, the child was compliant with the mother's instruction, which might be due to raising her voice at the child.

This mother and child were observed again in the post-test. Some excerpts are mentioned here in smaller segments.

> *The mother and the child were playing with toys. The child sat on the toy car and pretended to drive the car. The mother praised him for nicely playing with the car. Then, the child was playing with a happy face. The mother then focused his attention at a pink coloured fish. The mother asked about the colour, but the child remained silent. Then the mother said that it was the colour pink. Then the mother taught about colours. Then, the child and the mother started to play with the ball. They were throwing the ball to each other. The child threw the ball to the mother and the mother caught the ball.*

Tania was interactive and much more involved with the child's activities in the post-observation. She did use praise as a technique of acknowledging him. As a result, the child was smiling and continued playing. The mother demonstrated diverting strategies to focus her son's attention to the fish and colours. Because of using diversion, the child was not interactive for a while. Here, the mother understood the child's cues and his cognitive level. Then, she taught him names of colours accordingly. To make the child attentive and involved in the playing situation, Tania got him to focus on another game that they enjoyed and continued for a while.

Overall, the mother was very much responsive and active in the post-observation. She gave direction to the child in the pre-test. Her tone of voice was harsh and loud that made the child afraid and forced him to listen to her in the pre-test. In contrast, the child was happy to do joint activities with the mother as he received praise for his work. Tania mostly used mediation related techniques while interacting with the child. Such observational findings were also relevant to her quantitative data that improved due to attending the intervention.

From the pre-test interview, the researcher identified Tania's perception and her description about the son. Her interview transcript was as follows:

> *My child was very naughty and insisted on buying things. Sometimes my child was stubborn and did not want to play with his friends and did not want to eat. My child was afraid of me and if I told something, he obeyed my word very carefully.*

The mother mainly described her son in terms of his weaknesses and negative characteristics. She also talked about her coercive practice that seemed to be important for child upbringing. The researcher also observed her coercive practice in the pre-observation and pre-quantitative measures. She loved her son yet perceived him with negative attitudes.

The changes of the mother's perception towards her son were identified through post-interview.

> *Now my child helped me in daily chores. My child now could eat alone and play outside with his friends. He also listened to adults. My child was very humble and showed affection towards me.*

After attending the intervention, the mother equipped with the newly learned parenting skills and applied it on the son. Benefits of the intervention were clearly stated by the mother in this post interview. Her conception towards the child was changed into positive qualities/strengths that the mother could easily identify during the interview. Overall, the changes of parenting from pre to post reflected her conceptional shift to her child as a consequence of the intervention.

As part of Tania's experience of the intervention, she *liked* the activities (drawing, praising, watching videos) and content (positive conception of the child) of the intervention

during the individual sessions. At the end of the intervention, she *liked* the discussion about avoiding punishment to the child. She was given feedback about her *learnings* from the intervention. As like the quantitative measures, she learned about showing love to the child, following the child's lead, and talking to the child affectionately. In addition, the mother did not find *anything difficult to* understand on the sessions and at the end of the intervention. Most significantly, Tania had *changed some aspects of her childcaring*, such as giving meaning to the child (help the child understand his work), talking nicely, and avoiding punishment. This mother was also asked about *the techniques she learned from the intervention* and *used such as* praising the child, showing love, teaching good behaviour, and reciting rhymes to the child. Overall, her feedback was prioritised about the parenting efficacy, positive practices and quality interactions that also reflected in her quantitative and qualitative measures.

To explore her experience further onto the intervention, the researcher identified her caregiving and personal qualities, such as being responsible, optimistic, tolerant, caring, conscious, and interested to learn about childcaring techniques. She was very much reflective during the intervention that helped her to understand the current and potential skills to become a competent parent.

Case 4: Hasina

Hasina, a 27 year-old-mother, was brought up in a city area of Bangladesh. The only skill she had were counting and giving her signature and was involved in a construction site nearby as a day labourer. She had four children and the target child was a one-year-old girl. The father was a van driver. Their monthly family income was BDT 15000 with which they had to maintain their family of six. Hasina attended all eight sessions of the intervention.

With respect to the changes from pre to post-intervention, Hasina indicated improvements in most of the quantitative measures. An exception was found in "stimulation" of the IT-Home measure. She showed a comparatively lower-end improvement in the ORS of positive mother-child interaction. This was because, she scored lower in the post-test of "accepting the child" under the emotional interaction measure. A noticeable improvement was found in terms of the quality home environment measures that were, "maternal involvement" and "emotional/verbal responsivity".

Qualitative observation and interview findings for this mother are detailed here to understand her changes from pre to post intervention. A brief summary of pre and post-observation has been given below with some observational excerpts.

The mother was active and participatory while playing with the child in the pre-observation. An observational excerpt was as: *The mother and the child were playing. They were throwing the ball to each other [playing for a long time]. The mother taught the child how to clap. The child followed her mother…Then the mother put her on the swing.* Like pre-test, both were very active and interactive in the post-test. The mother brought variations in their play for focusing the child's attention. For example, *the mother asked (indicating at a picture of a lion), "What is it?" The child pointed on it and made some sounds [the child cannot speak, just making sounds]*. The child was very responsive compared to that in the pre-test. The mother made the child happy and they were clapping together.

Both observations indicated at the mother's participatory role and child's compliance with the mother. Before attending the intervention, Hasina mostly used emotional interaction-focused techniques (i.e., showing affection, talking intimately, and adapting to the child) to involve the child in joint play. In post-observation, this mother applied techniques she learned (praising and maternal mediation) on the child such as talking, acknowledging the child's responses, focusing attention, and giving meaning to the activity.

From pre to post-interview, the researcher identified the changes in Hasina's perception and her descriptions about the daughter. In pre-interview, this mother mainly perceived her child in terms of physical needs. The mother also talked about child's inappropriate behaviour, i.e., throwing objects, and negative emotion, i.e., anger. An example in the transcript was: *Sometimes when the child dislikes anything, she shows her anger by throwing items*. In contrast, the mother mentioned about the child's self-regulatory behaviour as her strengths in the post-interview. An example interview in the interview transcript was: *The child can take a shower and eat by herself.* Due to attend the meeting, the mother understood the importance of basic childcaring aspects and following child's interests. Therefore, the mother applied such techniques to calm the child down.

In terms of intervention experience, Hasina was given her feedback during the individual sessions and at the end of the intervention. She was asked about *what she liked the*

most and her *learnings from the intervention* that were focused on both activities (videos and drawing) and content (showing love, avoiding bad language, giving child the explanations). In addition, the mother did not find *anything difficult* during the intervention. Most significantly, Hasina had *changed some aspects of her childcaring* such as give meaning to the child activity, avoid coercive punishment, develop positive conception to the child, adapt to the child, and sensitise about childcaring. This mother was also asked about *techniques she learned from the intervention* and *used*. She replied that she gave meaning to the child's activity, demonstrated positive feelings, talked and adapted to the child. This mother also mentioned that she *faced no difficulties* during the intervention.

Hasina was also observed by the research assistant so as to identify the qualities as a caregiver that led to her benefiting from the intervention, such as her cordiality, responsibility, friendliness, confidence, and optimism about the betterment of the child. Overall, her experience of the intervention helped to understand the child, that in turn, would become her more competent as a parent. This statement is supported by two example quotes by the mother, i.e., "after attending intervention, I [Hasina] followed my daughter's needs" and "I did avoid using abusive language with my child".

Case 5: Rahima

Rahima was an illiterate 35-year-old mother who was brought up in a rural area. She had three children and the research target child was her youngest child, a 2-year-old boy. The mother and father were both involved in government jobs as cleaners. Their monthly family income was BDT 20,000 that was above the monthly household income in the context of Bangladesh. The socioeconomic status of this family was lower-middle class. They had a nuclear family with five members. Rahima attended all eight sessions of the intervention.

Rahima showed improvements in most of the quantitative measures after attending the intervention in Table 6.3. She did not show progresses in a few measures of the IT-Home (OPTE and emotional/verbal responsivity). In the observation rating scale of positive interaction, the mother showed a noticeable improvement in emotional and mediation related interaction. This might be due to her regular attendance, interest and active participation in the intervention. In particular, this mother performed well with her son in terms of understanding the child's cues,

talking to him, accepting and praising, engaging with his activities, and guiding him to learn self-discipline. Similarly, her child was more responsive towards the mother in the post-test compared to pre-test.

Qualitative observation and interview findings for this mother are detailed here to understand her changes from pre to post intervention. The observational transcript of interaction in the pre-test was:

> *The mother was holding a picture book and turning its pages for the child. She was looking at the pages. Simultaneously, the child was hitting on the book and making sounds in an act of play. The mother was silently turning the pages and looking at the book (continuing for 5 minutes).*

This scenario indicated the failure of understanding her child's signal, lack of mother-child quality interaction, poor collaboration, and low involvement with the child.

> *"…Then, the mother took a car and put it on the book. Immediately, the child held the car and was playing with that. The mother showed him how to drive the car."*

In the above section, the mother showed some extent of engagement with her son's play.

The post-observational transcripts were as follows:

> *The child held an ice cream bar and gave attention on it. The mother was trying to get him to focus on drawing and showing pictures of animals. But the child focused on the ice cream bar, was licking it, and holding it upside down. The mother helped him to hold the ice cream properly… When the ice cream was melting, the mother was wiping his hand repeatedly…After finishing the ice cream, the mother wanted to throw away the stick which had held the ice cream. However, the child wanted to keep the stick [crying]. Then, she gave time to him with his stick.*

After intervention, the mother exhibited her intervention skills during the observation. The data revealed that the mother positively understood the child's demands of having ice cream. She also taught him how to hold the ice cream properly. At the same time, she talked to him affectionately and showed her positive concern about his health condition because of having ice cream. By allowing him to possess the ice-stick, she followed the child's interests and showed her positive conception towards her son. The mother also taught him the situational behaviour as a part of helping the child to learn self-regulation.

Some more post observation transcripts were:

> *After a while, the child looked at colouring crayons and the picture book that was kept in front of him. Then, the mother immediately got him to focus his attention on a picture of a "cat" by making meowing sounds. Consequently, the child replied with "meowing" sounds.*

As observation continued, the mother was interactive and showed patience to direct the child's attention toward the picture book.

Similar to the quantitative findings of observation, the mother was not very much interactive in the pre observation. She did not demonstrate the ICDP's eight themes except focusing child's attention and giving meaning in a very superficial manner. In the post-observation, the mother was much more involved with the child, showed positive conception and demonstrated most of the ICDP themes except elaborated a shared event.

The pre-test interview transcripts are mentioned here to understand Rahima's perception about her son.

> *I [the mother] am taking care of the child. I feed him milk with the feeder and help him fall sleep. After he wakes up, I give him a shower and food. I help him to dress up when he goes outside to play.*

By these statements, Rahima indicated her childcaring process. She also mentioned about positive parenting practices in such statements: *I stay to play with him. I seldom recite a poem for him. I am not angry with my little child. I acknowledge that my son can do everything by the grace of Allah.*

The post-interview transcripts are presented to Rahima's conceptional changes about her son.

> *Whatever I tell my son to do, he exactly does that. If I ask him to bring a water bottle, he brings it. He listens to us; it is a great feeling as a parent. Normally, kids cannot do whatever you instruct them, but he can……I feel good about my child. He has really a sharp brain. Everyone says that he is beautiful, he can talk, and he can play. He is calm and quiet.*

In post-interview, the mother could more focus on describing her son in terms of his cognitive and motor abilities. Her statements above explored her ability and pride as a parent. Such parental confidence was identified by the mother after attending the parenting intervention. Another important segment of her interview was as follows where the mother could explicitly praise the child for his learning skills.

> *He can wash himself, bathe on own. Ma'sha Allah! (Arabic word denoting praise) He can do everything by the grace of Allah. He does not go outside without wearing clothes and shoes.*

By considering both interview findings, the researcher explored that this mother had basically a positive conception of her child. The mother was mostly focused on parental roles and responsibilities, that is, regular childcaring in pre-interview. The intervention effect was reflected by her post-interview where she focused on more describing the child's positive qualities, i.e., behavioural self-regulation and cognitive/motor capacities.

In terms of the mother's experience of the intervention, Rahima gave feedback about the things she *liked the most of the intervention*. Her individual sessions' feedback were mostly focused on intervention activities whereas end of intervention feedback mentioned the content of intervention (i.e., showing love, adapting, talking, and praising). She was also given feedback about *things she learned from the intervention*. Her responses were similar to the most liked content of the intervention, that is, emotional interaction. After that, Rahima was asked about *facing difficulties during the sessions.* The ice-breaking activities of the first three sessions were difficult for her to understand. In responses of *the mother's changing aspects of childcaring* and *the techniques that she used from the intervention*, Rahima spoke of the positive changes towards

her son, that is, showing respect and behaving nicely, avoiding scolding or beating, giving meaning to the activities, praising and following his leads. These questions were asked only in the post intervention feedback interview.

To further explore the mother's intervention experience, the researcher identified Rahima's cordiality, friendliness, and interest towards learning new things that helped her to maintain group bonding, to discuss collaboratively, and to receive new learnings from the intervention. Overall, all these qualities directed her to gain benefit from the intervention.

Case 6: Maleka

Maleka was a 26-year-old mother who was brought up in a rural area of Bangladesh. This mother had two children and the target child was 1-year-old girl, the youngest child. The mother was a housewife with five years of schooling experience. The father was a cleaner of the city corporation, a government organisation. They had a nuclear family with four members. Their monthly income was BDT 15,000, below the national standard income level and insufficient for fulfilling the household expenditures. Maleka attended the first six sessions of the intervention. Table 6.3 represents the overall quantitative findings of this mother.

In compared to changes from pre to post-intervention, the mother indicated an improvement in parenting efficacy; however, her parenting satisfaction decreased. This mother reported functional parenting practice by avoiding coercive parenting.

In terms of the quality home environment, the mother reported overall improvements in maternal involvement and emotional and verbal responsivity variables. She indicated the same scores from pre to post in stimulation and avoidance of restriction and punishment variables. The mother reported no improvement in organisation of physical and temporal environment. In observational rating scale, the mother showed improvements in understanding and sensitivity, talking, accepting, engaging with child's activities, and guiding to learn self-discipline. Similarly, her child was more responsive to her from pre to post-test.

Maleka's qualitative observation and interview findings are detailed here to understand changes after attending the intervention. The summary of pre-observation was presented here with some excerpts. This mother was active in the pre-observation. The researcher observed the mother's way of capturing the child's attention. She used more diverting techniques rather than

attracting attention to the existing task. The researcher also identified an emotional intimacy between mother and child while the mother was tickling the child. An interaction segment of pre-observation was:

> *When the mother took the fish and made sounds, the child grabbed the fish and banged it on the ball. The ball dropped from her hand, the mother immediately gave her the notebook and crayons to draw. The mother helped her to hold the crayons correctly. The child scribbled on the notebook.*

The child's fascination towards the ball was seen throughout the interaction. This was the point of interest where the mother missed the child's cue about the ball and presented the notebook and crayons. The child was compliant during the play. However, the mother sat behind the child so she was unable to notice the child's facial expression and did not understand her interests properly.

This mother and child was observed again at post-test and that transcript is briefly mentioned here.

> *The child was playing with a box of colour crayons. The mother was with her, looking at the crayons, and affectionately encouraged her by saying "Dear, draw nicely". In reply, the child also smiled at her and expressed her interest in drawing. As the mother sat beside her and leaned toward the child, she saw her runny nose and wiped her nose with the corner of her saree [traditional dress].*

Here, an emotional bonding between the mother and child was identified. The mother's seating position and concern towards the child showed her positive feelings and competencies that reflected the improved quantitative measures of parenting efficacy, positive encouragement, sensitivity, and positive mother-child relationship. Another segment of post-observation was:

> *The mother then tried to get her to focus her attention on the ball by saying "Do you want to play with the ball?" But the child was busy drawing. Then, the mother got involved with the drawing and asked about it. The child in a low voice answered, "Ball".*

This segment identified the mother's skills about directing the child's attention. The mother was more sensitive and adaptive to the child than in the pre-test. Moreover, the post interaction reflected the increased maternal involvement along with the emotional conversation between them. The changes identified in the post-observation were that she used motivational words with

the child in order to get her involved in the task, prioritised the child's wishes, gave meaning to the child's activities, and responded immediately. Similarly, the child was also responsive and sensitive towards the mother.

The pre-test interview revealed Maleka's perception about her daughter before she attended the intervention. Her pre-interview transcript was: "*My child usually plays all day long. She is not that much involved in naughtiness. Usually, a child does something naughty. In general, she stays calm when her stomach is full. She understands my words."*

The changes of the mother's perception towards her daughter were identified through post-interview statements: *Usually, my child is playing when her stomach is full. She does not fight with others. She plays with her brother. She does not cry when I allow her to play with water and soap during bath time. She can address me, her father, and grand-father. I like it when she is playing and staying inside the home."*

Overall, both interview findings identified that this mother had a positive conception towards the child. She addressed the child's naughtiness positively in the pre-test. Moreover, she stated about her involvement with the child's activity and the child's strengths in the post-test.

Maleka was given feedback about her intervention experience. She *liked most* of the activities of the intervention, especially the pictorial parts and videos. In content, the thing she *liked the most* was about adapting to the child's interests. Then, she was asked about *her learning* from the intervention, which were, avoiding coercive parenting, positive encouragement, positive relationship, maternal involvement, and emotional conversation between mother and child. She did not find *any difficulties* in the intervention. Most significantly, Maleka had *changed some aspects of her childcaring*, i.e., using mobile phone and television for showing rhymes and cartoons during meal time of the child (previously she used to make her cry). This mother was adapting to the child, showing respect, and behaving well with the child. These were *the techniques she used with child that she had learned from the intervention.* She also stated about starting the session on time as an area of improvement.

Overall, the researcher identified Maleka as attentive and interactive during the intervention. Though she was not always sharing thoughts and experiences proactively, she participated during the discussion once the facilitator asked her to do it. She used fewer words during discussion but did it more precisely and within the intervention framework. The researcher also observed her caregiving qualities that led to her benefiting from the intervention, such as her

cordiality, responsibility, friendliness, confidence, optimism about the child, and curiosity to understand the child. Therefore, her experience of the intervention was helped her become more competent as a parent.

6.2 CASE STUDIES OF MOTHERS WHO BENEFITTED THE LEAST FROM THE INTERVENTION

This section presents the overall findings of five mothers who did not appear to have benefitted from the intervention. All of the five mothers attended seven sessions of the intervention whereas two mothers missed the 5th session, two missed the 6th, and one missed the 8th session. All the target children were males except for one female. The specific demographics of each case (see also Table 6.2) are mentioned along with their findings. Table 6.3 displays the overall quantitative findings of the five least benefitted cases of the intervention (before Section 6.1).

Case 1: Shirin

Shirin was a 25-year old illiterate mother who was brought up in an urban area. She had three children and the target child was the youngest, a 1-year-old boy. She was a housewife and the father was a cleaner. To maintain the five-member family, their income was BDT 5000 that was very poor in both the national and the international poverty context. The findings indicate hereunder Shirin's parenting practices over time.

Findings. An overview of quantitative measures in Table 6.3 showed the worsening scores in the most parenting variables whereas some remained the same and only the Emotional and Verbal Responsivity variable improved a bit over time. More specifically, the mother's sense of parenting efficacy, avoidance of coercive parenting, and maternal involvement did not improve. In observational rating scale, the mother's score also decreased from pre to post-test in the Emotional Interaction measure whereas it remained the same in the Mediated Interaction measure. In particular, Shirin showed less sensitivity towards her son in the post-test.

In qualitative pre-observation, the mother was not interactive at all. She did not understand the child's point of interests and cues during the play. The child might have felt irritated and uninvolved with the play. The related observational scenarios are given below:

> *The mother tried to show different toys to the child, i.e., ball and sound making toy fish. However, the mother did not understand the child's cue about playing with the ball. When she was dropping the ball on the floor, her son noticed it and looked at the ball. But suddenly, she stopped playing with the ball and did not even try to get the child involved in playing with the ball. She started playing (making sounds) with the toy fish without introducing it to the child.*

Overall, the mother could not manage to play with and involve the child in the play session. The observation situation improved a bit at the time of post-test. Post-observational excerpts were:

> *The mother and child were sitting together on the bed. She tried to get the child involved in drawing activities by showing colour crayons and note-book. But the child looked at the ball that he held in his hand. Then, Shirin continuously tried to get him involved by showing a picture book of animal... Still, the child wanted to play with the ball, however, Shirin did not notice his interests.*

The mother talked a bit and could manage to get the child involved with colour crayons and the animal pictures for a while. However, the mother still could not carefully notice about the child's requirements and demands for playing with the ball. She forced him to do colouring so he repeatedly tried to escape from the session.

In qualitative interviews about the mother's conception towards the child, the mother stated the likings of the child in the pre interview. The mother's statements were as follow: *My son is very playful. He likes to play with his* siblings. On the contrary, she talked about her positively changing the way of childcaring in the post interview. The mother's statements of the post-interview were: "*When my son is crying, I understand that he is hungry. I feed him and help him to sleep. Sometimes, I recite rhymes to get him to fall sleep. When he wants to buy anything, I explain that I do not have enough money*." From her statements, her improvements were found in talking, adapting to the child, and helping the child learn self-regulation. Such improvements were revealed from both qualitative measures at post-test phase.

Her overall experience of the intervention also focused on her likings about the intervention contents (i.e., showing love and respect to the child, behaving well with the child, avoiding coercive practice, adapting, focusing on the child, and childcaring) and activities (i.e., videos and praising each other). However, all such positive experiences of the intervention did not adequately appear in the post mother-child observation. The mother's positive learning and use of child caring techniques from the intervention were behaving well with her son, less use of coercive practices, following son's needs and interests, and better taking caring of the son. Though she attended seven sessions of the intervention, her engagement in the intervention was less interactive and less participatory.

Case 2: Sadika

Sadika, aged 18 years, was one of the youngest mothers of this study. She was brought up in an urban area. She completed her primary level of schooling. Sadika was a housewife and remained at home to take care of her 1-year-old boy. This was an extended family with seven members where the father was the only earning member. An average income of BDT 5000 per month represented very poor living conditions, which was an overcrowded and tiny dark room. She attended the sessions along with her son. The overall findings of this mother are outlined below.

Findings. With respect to the changes from pre to post-test, Sadika scored considerably worse in the parenting sense of competence and observational rating scales of positive interactions. More specifically, this mother scored very poor in the post-test of the Efficacy sub-scale of the PSOC. In observational rating scale, Sadika indicated a deterioration in both emotional and mediated interaction measures. That means, this mother scored lower in sensitivity to the child, talking, being accepting to the child, effective engagement, and guidance to learn self-regulation. The child also showed less responsiveness towards the mother in the post-test. In contrary, she showed tiny improvements in four variables and stayed the same in four variables over the time. She demonstrated barely any improvements in avoiding coercive parenting, home stimulation, and maternal involvement. In addition, she also showed her parenting improvement in emotional and verbal responsivity variable.

As in the quantitative findings, this mother showed her competency and involvement with the child in the pre-observation whereas the researcher found her insensitivity towards the child in the post-observation. One of her pre-observational excerpts was as follows:

The mother and child were playing with the ball. She rolled the ball and it went away from the child. It made the child happy and he felt interested at playing with the mother.

However, she was inconsistent, did not understand the child's demands, and could not adapt to the child in the post-observation. The relevant post-observation excerpt was as follows:

The child was not interested at looking at the picture book and colours. He repeatedly looked at the bicycle that stood outside of their room. The mother did not notice it and forced her son to get involved with the book.

She even did not use any motivational words or praises with the child when the child was focusing his attention to the task.

In the pre-interview about the mother's conception to the child, Sadika talked about her son's playfulness and likings to activities such as listening to stories, music, playing with mobile phone, and watching television. In the pre-interview excerpts, Sadika stated, "*My child likes to play all day long. He also likes to listen to stories and songs. Sometimes, he is busy with his uncle's mobile phone*". Overall, she stated her satisfaction at her son's activities.

In the post-interview, she talked more about her positive and negative ways of managing the child and their emotional and verbal responsivity towards each other. An example of post-interview excerpts: "*My son kisses me and hugs me. In return, I also kiss him. When he cries, I take him to the side of the road. I feel upset when I have to force and be strict to feed him*". The mother very much liked his play activities that also showed her satisfaction towards him. That means, both interviews were focused on the mother's positive perception towards the child. The mother showed an inner insight and confidence while talking about her childcaring techniques in the post-interview.

Though the mother regularly attended the sessions, she did not participate in the discussion and sharing stories on her own. She hesitated about what to focus during the discussion that was also seen in her quantitative measures about her interest and active participation level during the sessions. Her experience of the intervention focused on both contents and activities. Unlike the mothers who benefitted from the intervention, she talked about a limited number of contents during her daily sessions and overall intervention feedback

interviews. She recalled more about the emotional interactions (i.e., showing respect, adapting and talking to the child) as the contents where she mostly talked about the various activities of the intervention, such as praising, positive conception to the child, videos, and role play.

Case 3: Monira

Monira was a 30-year-old illiterate mother who migrated from a rural area. She was involved in part-time household works as a maid. She had a 3-year-old boy. The father was a day labourer. This was a nuclear family with three members. Altogether, the monthly income was BDT 6,000 that represented their lower socioeconomic status. Their house was very risky to live in during bad weather for example, heavy wind and continuous rainfall. The summary of Monira's quantitative and qualitative findings are briefly presented in the next paragraph.

Findings. In comparion to the changes from pre to post-test, Monira reported her worsening parenting practices on most of the measuring variables. Parenting Satisfaction was the most worsened measures from pre to post-test. Monira showed declines in Efficacy of the PSOC, Stimulation, Maternal Involvement, and Emotional and Verbal Responsivity of the IT-Home measure. In the observational rating scale of positive interaction, she showed a consistent declined. Moreover, Monira showed an improvement in avoiding coercive practice and positive mother-child relationship whereas the variable, i.e., OPTE hardly improved over the time.

In qualitative observations, the mother showed some moments of involvement with the child and praised him for the drawing activity in the post-observation. An example of the excerpts was: *The mother praised him by saying, "This is nice! Draw more... Draw a good picture".* She was not engaged with the child in the pre-observation, for example, "*the mother stayed silent with the child. She was inattentive and went away for a long time during the session"*. However, the researcher found some improvement in the mother's parenting that was praising the child and getting involved with him, due to the intervention. However, these post-observational findings

did not support the quantitative measures of positive interaction and maternal involvement of the IT-Home.

In the interviews of mother's conception towards the child, the mother talked about both positive and negative qualities of the child in the pre and post-interviews. In pre-interview, the mother said, *"The child imitated others and went to the mosque for prayer. That was what I liked very much"*. Her understanding about childcaring due to the intervention was not reflected in her post-interview. She did not like her son's naughty behaviour that she mentioned in both interviews. In post-interview, the mother especially said, *"I [the mother] did not like the child's naughtiness and disobeying me"* The researcher found that there was an inner traditional gender-role concept towards her son.

Overall experience of the intervention of this mother was positive. She was attentive, interested, and active throughout the sessions and gave her feedback by recalling most of the contents and activities of the intervention. By attending this intervention, this mother had changed some aspects of childcaring; for example, giving meaning to the child's activities, adapting to the child, giving importance to the child's potentiality, and avoiding coercive parenting. In addition, she used several parenting strategies with her son, i.e., adapting to the child, prioritising the child's needs and making the child understand about his inappropriate behaviour with the peers. This mother's quantitative measures supported her qualitative outcomes. However, most of her learned experiences were not visible in her observation and interview in the post-test.

Case 4: Minara

Minara was another young mother who was 18 years old. She was brought up in an urban area and had 8 years of schooling experience. The mother was a housewife and the father was a driver. They had a 1-year-old boy who was mostly being taken care of by the mother. This family was extended in nature. The monthly income of this family was BDT 8000, considered as poor. Their house was the same as that of Monira's house, that is, it was also risky for living in with a very young child.

Findings. The decline in Minara's parenting skills was found in most of the measures. All these variables had very close differences to give the consideration as to have worsened from pre to post-test. As for the exception, the mother scored higher in the post-test in Coercive Parenting, that means, she reported more usage of scolding, hitting, and abusing the child in the post-test. In contrast, the mother showed little improvements in the Mediated Interaction of the ORS and the IT-Home's sub-scales of Stimulation and Maternal Involvement. She stated a noticeable improvement in Parenting Satisfaction scale over the period. Minara also reported the same scores in Emotional Interaction of the ORS at both measuring phases.

In pre-observation, the mother showed coercive practices by scolding and hitting the child throughout the pre-observation. An example from the excerpts was as follows: *At the beginning of the observation, the mother gave a risky object [Steel's scale] to the child. The child was using the scale to hit the bed and near his mother and another child throughout the session. The mother tried to involve him in the play and at one point, she slapped him*. The mother could not manage the child in getting him to play properly. A similar scenario was also seen in the post-observation. The child was inappropriately playing with the doll and other toys. The mother showed positive feelings towards the child but she did not understand the child's cues properly. Overall, her interaction and management techniques focused on the child learning inappropriate behaviour. Example scenarios were as follows: *the mother presented different objects to the child, such as picture book and teddy bear. The child was hitting all the materials and the mother did praise his inappropriate activities*. Though the mother attended most of the sessions and also participated in the discussion and activities, her learnings from the intervention were not observed during her interaction with the child.

She described her child as being of cool-temperament and obedient in both pre and post-interviews. In the post-interview, she stated her child's tendency to hit people and she managed him by beating or scolding him. She said, *"He was so impossible to handle. I was irritated and beating him"*. Most importantly, the mother boasted she gave birth to "a male child" in the family. Overall, her qualitative observation and interviews supported the quantitative findings.

From Minara's experience of the intervention, she gave feedback about things she liked the most from the intervention. She mentioned both contents (positive conception to the child, adapt to the child, avoidance of hitting and scolding) and activities (video, drawing, praising each

other, picture identification) of the intervention. With respect to Minara's important learning from the intervention, she could recall all concepts of the ICDP. However, she did not show her improvements in the post-test. The mother did not find any significant difficulties during the sessions. Most significantly, Minara talked about her changes in traditional aspects of childcaring, such as to prioritise child's daily activities, calm the child down, and help the child become self-independent. This mother mentioned about different techniques that she learnt from the intervention, i.e., showing love, adapting, and praising the child. Overall, Minara tried to be attentive but the child diverted the attention during the session. She participated in the session activities. However, she could not properly express herself. Minara's intervention experience was not reflected in her observational and quantitative measures in the post-test.

Case 5: Zinat

Zinat, 35 years old, was one of the eldest mothers of the study. She migrated from a rural area with 8 years of academic experience. The mother was a housewife and the father was a small businessman. They had four children and the target child was 3 years old girl. A total of four members stayed together in the slum and two of the older children were living with their grandparents in a rural area. The monthly income was BDT 14,000 on an average, which was also below the national income level.

Findings. Table 6.3 reported the mother's changes in the parenting variables. She showed worsening practices in some measuring variables and also showed improvements in other variables. In the worsened variable, Zinat showed the higher differences from pre to post-test in Parent-Child Relationship and Coercive Parenting. The PSOC sub-scale of Efficacy and the IT-Home sub-scale of OPTE indicated little differences over the time. That means, the mother did not benefit from the intervention on those measuring variables. In contrast, she explicitly indicated her improvements in Satisfaction (Sub-scale of PSOC), and Mediated Interaction (sub-scale of ORS). Zinat showed barely any improvement in the Emotional Interaction of ORS and IT-Home's Stimulation and Maternal Involvement variables. Her quantitative findings also supported the qualitative observations in the next paragraph.

This mother was inactive and silently sitting with the child during play in the pre-observation. The child was colouring with crayons on her own. Then, the mother became

engaged without any interaction with the child's play. One of the pre-observational excerpts was as follows:

> *The child was colouring and selected one crayon to colour. The mother instructed her to use another colour and took it away from the child. Therefore, the child was angry and snatched the crayon from the mother.*

This pre-observational transcript showed that the mother was just physically sitting with the child. Instead of interactive play, she was directive towards the child. Consequently, the child felt irritated and angry towards her mother. The same scenario was recorded in the post-observation, except for the fact that the mother was a bit interactive with the child. A relevant post-observational excerpt was as follows:

When the child was looking at the picture book of animals, the mother was silently sitting with the child. The child interacted with a neighbour woman who came to their house. The child identified the animals from the book, such as monkey and tiger. However, the mother was silent and just pointed towards pictures.

Both observational excerpts indicated the mother's directive and non-interactive behaviour of being barely involved. The researcher did not find any emotional interactions, such as showing affection, understanding of the child's needs, giving praise, and talking with the child. Though the quantitative measure showed an improvement in mediated interaction, the researcher very rarely observed it throughout the post-observation.

In pre-interview, the mother highlighted the child's naughtiness that she disliked very much and did punish for it. She said, *"The child does not listen to me at all, she is very naughty"*. That means, she had some negative conception towards the child. Her conception towards her daughter was changed a bit when she identified some qualities of her child in the post-interview, such as playing, cooking, and independently bathing. The mother said, "*She liked it when the child imitated. When she was cooking, the child was also playing cooking game"*. That means, the mother liked her independence.

From her experience of the intervention, the researcher identified that she came late and was not that much active during the sessions. She usually kept silent unless the facilitator asked

her something. She could recall most of the contents from the intervention while giving feedback about the intervention. However, the researcher did not notice her improvements in the quantitative measures and qualitative observation. In case of this mother's qualities, she showed her optimistic view about the child at the time of group discussion. The RAs identified her lack of knowledge regarding child development and childcaring techniques. She mentioned about focusing more on the child's daily care activities and how to calm the child down as results of her improved childcaring strategies after attending this intervention.

6.3 CRITICAL COMPARISON BETWEEN THE MOST BENEFITTED AND THE LEAST BENEFITTED MOTHERS

This section presents a substantial analysis of the individual cases. From Section 6.1 and Section 6.2, the researcher identified some demographic and personal characteristics of the mothers that distinguished mothers that benefitted the most and those that least benefitted from the intervention. The researcher also keenly looked at the measuring data of two groups and revealed some points that differed in these two groups of mothers.

There are some socio-demographic factors that distinguished mothers benefitting the most and the least. These factors were (i) living conditions, (ii) family income, (iii) family type, and (iv) sex of the target child. Though the mothers benefitting the most were living in slums, their households were relatively permanent, i.e., tin-shed rooms with cement-made floors. The monthly family income of these benefitted mothers ranged from BDT 10,000 to BDT 20,000. In comparison, the households of mothers that least benefitted were relatively temporary and risky in case of heavy rainfall and windy weather. The monthly income levels, which influenced their parenting practices, ranged from BDT 5,000 to BDT 8,000, except for one family whose income was BDT 14,000. Family structure was another factor that differed between the two groups. Five mothers of the benefitting group (out of six) belonged to nuclear families whereas three mothers of worsening group (out of five) belonged to extended families. In terms of sex of the study's target child, the benefitting group had more female children (4 out of 6) and the worsening group had more male children (4 out of 5). Thus, gender of the child might be a factor that led to differing parenting practices between the groups. In the benefitting mothers' group, the total number of children ranged from only child to 4 children; two mothers had only one child, two had two children each, one mother had 3 children, and another had 4 children. In the least benefitting group, three mothers had

only one child each, one had 3 and another had 4 children. One similarity was found between two groups: the mothers who had more than one child, the target child was mostly the last issue of mothers. Therefore, it could be stated that the mothers of two groups had different features in terms of their demographics that might have an impact on intervention outcomes.

The researcher identified that the mothers who benefitted the least actually had higher pre-test scores than the mothers who benefitted the most (see Table 6.2). For example, the Efficacy sub-scale of the PSOC had lower pre-test score for the six benefitting mothers (38.0) in comparison to the higher pre-test score for the five least benefitting mothers (42.8). That means, the mothers who benefitted started their measuring scores at lower levels than those who did not benefit. In the same way, the mean pre-test score for Coercive Parenting for the six mothers who benefitted is 9.67 compared with only 6.0 for the mothers who did not benefit. The mean pre-test score for Parent-Child Relationship for the benefitting mothers was 2.5 whereas 1.6 for the least benefitting mothers. Thus, the mothers who benefitted the most displayed more coercive parenting and dysfunctional parent-child relationships before the intervention compared with the mothers who did not benefit. Similar differences are apparent with lower maternal involvement (4.83 compared with 6.6), lower emotional/verbal responsivity (3.67 compared with 4.6), lower emotional interaction (6.83 compared with 9.8), and lower mediated interaction (7.0 compared with 8.4). It suggests that mothers who are more coercive, less involved, less responsive and so on in the beginning are the ones who really benefitted from the intervention.

All six benefitting mothers were attentive, cordial, confident, interested to learn new things, and optimistic about children. Such personal qualities influenced them to attend more sessions and pay greater attention towards the sessions. At the beginning of the intervention, they made more comments about coercive practices in the quantitative and qualitive measures. As time elapsed, all benefitting mothers practiced alternative positive parenting instead of previous harsh parenting; for example, "*I avoid hitting* (ID 1, ID 111) *and scolding the child* (ID 42)". Their interest towards learning helped them to become more adaptive with the children and to practice positive interaction such as praising to the child, talking, mediating to learn, and learning self-regulatory behaviour.

Although all five least benefitting mothers attended seven sessions of the intervention, the researcher identified them as inattentive, less communicative, less reflective, impulsive, and belated. The researcher observed, "*The mother was absent-minded and restless during the session as she had to go to her home*" (ID26, ID47). They could not express their parenting experience properly due to poor communication skills. Among five mothers, three of the least benefitting mothers attended special sessions to make up for their missed session. In addition, two mothers had a tendency to come late at the sessions. Therefore, such characteristics of mothers hindered optimal participation in the intervention. The researcher also found out that the children of four mothers were staying at home under minimal adult supervision at the time of the intervention. It might be a reason for inattentiveness during the sessions. Though the mothers made comments that reflected their positive parenting practices, the researcher did not find such practices in the post observation. Over the time, the mothers could not improve their harsh parenting practices.

Therefore, these distinguished characteristics of the two groups set them apart as mothers benefitting the least and the most after attending the intervention.

6.4 SUMMARY AND CONCLUSION

Individual cases are presented and analysed in this chapter. The researcher included six individual cases who benefitted the most from the intervention and five mothers who least benefitted from the intervention. The benefitting mothers showed improvements in most of the measures whereas the least benefitting mothers did not show improvements in most of the measures. As all quantitative data did not have significant main effects and qualitative data were not sufficient to see the intervention effectiveness, the individual cases helped to explore the detailed scenario of quantitative and qualitative outcomes and their variation on the individual level.

In case of the most benefitting mothers, the researcher identified that most of the mothers showed improvements in all quantitative and qualitative measures. They were mainly attentive and more participatory in the intervention activities. In case of the least benefitting mothers, it was identified that some of them improved in some measures quantitatively while they did not improve in the qualitative observation and interviews. Some of the mothers of this section did not improve in both quantitative and qualitative measures. Two of the mothers also

bore prejudices about the gender role and values in society, especially for the male children in the family. By considering all these aspects, these mothers were assumed to have least benefitted from the intervention. The tentative reasons of ineffectiveness of the intervention would be discussed in the next chapter, Chapter 7: Discussion and Conclusion, of this thesis.

Chapter 7: Discussion and Conclusion

Parenting practices have influence on children's developmental outcomes. Responsive, affectionate, and sensitive parenting assists children to develop capacity to modulate emotions and behaviour (Grolnick, Caruso, & Levitt, 2019) which shape their character and competence (Thompson & Baumrind, 2019). Parents are the initial source of young children's language experiences, shape children's play experiences, structure home environment, and regulate self-discipline. Global studies revealed the high-need of parental support for the poor and underprivileged families (Black et al., 2017; Hartwig et al., 2017; Negrão et al., 2014). With consideration of literatures on importance of early caregiving qualities (Negrão et al., 2014; Niec et al., 2016; Thompson, 2016), limited number of research has been conducted in the disadvantaged context of Bangladesh (Hamadani et al., 2014). As parents, especially mothers, are the primary caregivers in Bangladesh, this intervention study has been prioritised the mother education for the families who live in poverty.

The main purpose of the study was to evaluate the effectiveness of the International Child Development Program (ICDP) that promoted parental sensitivity, enhanced parent-child positive interaction, and improved parenting practices. Taken as a whole, this study primarily conceptualised on the bioecological theory of Bronfenbrenner (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 2006) through which the researcher considered the contexts of mother-child dyads. Previous parenting intervention studies also helped designing this study for maximising its effectiveness. In earlier of this thesis, the researcher presented the mothers' experience of the intervention that monitored the implementation process of intervention and provided some insights about quantitative and qualitative results of the study. The detailed findings were reported in Chapters five and six. In particular, the findings about effectiveness of the intervention were reported in Chapter five. Chapter six critically analysed the individual case studies.

By integrating the quantitative and qualitative data, the current chapter presents a comprehensive and sophisticated discussion in light of the Bronfenbrenner's theoretical framework and previous parenting literatures. Key findings of this study and possible reasons for unforeseen quantitative outcomes are critically discussed in Section 7.1. A "Big Picture" of the findings briefly explains the entire story of the research that is presented in Section 7.2. Then, Section 7.3 focuses on strengths and limitations of this study. Future directions and implications of this study are also outlined in Section 7.4. Finally, Section 7.5 draws a concluding remarks on this thesis.

7.1 KEY FINDINGS OF THIS STUDY

The current study employed a RCT with pre-post wait-listed control group design. This study was conducted with mothers of young children who were recruited from the disadvantaged area via NGO – the gatekeeper of this study. The impact of socio-demographics of the recruited families (i.e., maternal education, maternal birth place, child's birth order, child's sex, family structure, family income) prior to intervention was also considered in this study. The outcomes of the present study confirmed that the parenting intervention relevant to mother-child positive interaction has some beneficial effects on mothers' efficacy, positive parenting practices, positive relationships, emotional interaction and mediation towards children. The results of the current study also showed that this ICDP intervention helped mothers to sensitise about the importance of child development and perceive their children positively. This section critically discusses the three key findings of the current study; these are as follows:

Key Finding # 1: Disadvantaged mothers of young children demonstrated positive changes in parenting sense of competence.

Key Finding # 2: Positive changes in parenting practices and mother-child interactions.

Key Finding # 3: Mothers reported their conceptions towards children.

The first key finding is linked to the first research question of this study whether the ICDP intervention increases the mothers' feelings of competence. Key finding number 2 focuses on the second and third research questions. The last key finding is associated with the fourth research question of this study whether maternal conception of their children changes due to the parenting intervention program. Overall, all three key findings are linked with the fifth research question of this study that distinguishes the characteristics of the mothers who benefitted the most and who benefitted the least from this intervention. In the following sub-sections, these key outcomes are discussed in relation to previous studies.

7.1.1 *Disadvantaged Mothers of Young Children Demonstrated Positive Changes in Parenting Sense of Competence*

Parenting efficacy and satisfaction are two measures in parenting sense of competence. Results indicated the improvements on the parenting sense of competence over the time. In particular, the significant effect on the Efficacy measure indicated the intervention mothers' beliefs in their ability of childcaring (see table 5.4 in chapter 5). Regular attendance and participation in this intervention study made changes in maternal beliefs which reflected through their behaviour and activities, such as showing positive feelings to their child, involving with children's activities, talking and sharing stories with children, avoiding to do physical and verbal abuse towards children, identifying children's needs and so on. These positive changes in beliefs might come due to self-evaluation of mothers' performance and education in childcaring. Before receiving intervention, the mothers' beliefs in parenting were influenced by traditional and cultural practices that transmitted from generation to another in the disadvantaged context. Mothers' dependency in coercive practices and ignorance in child's developmental outcomes made them believed as more efficacious parents that also found in this study findings (table 5.4). After parenting intervention, the mothers evaluated their own parenting practices, then they could identify their area of improvements. In addition to self-awareness, mothers' knowledge in childcaring from the intervention helped them demonstrating adaptability and enhanced involvement with their children which was also found in a systematic review of group-based parenting intervention study (Wittkowski et al., 2016). Maternal adaptability and involvement in child's activities reflected their competency and empowerment as a parent who could do better parenting practices to improve their children's life. In line with this, Bandura's theoretical

perspective on self-efficacy supported this study (Bandura, 2006). That means, when mothers enthusiastically engaged in self-development, adaptation, and change in behaviour, they involved in dynamic interplay between their own personal characteristics and socio-cultural components within the larger societal context. As underlying mechanism, mothers' self-efficacy developed in the association of maternal cognitive, affective, and behavioural processes that in turn helped to shape their parental adaptation and development of children (Cao et al., 2022).

Researchers also identified that mothers' behaviour and experience of childcaring consider as key indicators for improving maternal confidence level which in turn improves parenting efficacy (Wittkowski et al., 2017). Previous evidence supported the importance of parental sense of efficacy in a way that higher parental efficacy could increase the maternal acceptance of their children's needs and avoid the unnecessary use of restriction and punishment (Woods, 2011). Bio-ecological theory also acknowledged the dynamic interplay between the child, the family, and the disadvantaged conditions in which they functioned (Bronfenbrenner, 1979). Proximal processes, that is reciprocal interaction, between mother and child become "progressively more complex" over time (Bronfenbrenner & Morris, 1998; Xia et al., 2020); for example, maternal involvement with the child's playing may help developing child's knowledge, skills, and abilities that indicate competency of the child. In this study, the maternal efficacy enhanced after intervention as they were more involved in children's play by understanding their needs, focusing child's attention to the task, giving meaning, less use of scolding and restrictions. Despite of the mothers' illiteracy, they learned how to reciprocally interact with children and become more confident parents after intervention. This study findings also supported by a recent largest ICDP effectiveness study in Norway. The researchers found that parents in the intervention group reported improved self-efficacy in their role as parents and improved parental emotional sensitivity towards their children (Brekke et al., 2023).

Though this study found a significant effect on Efficacy measure, there was a small improvement found for the intervention group and a decrease for the control group (table 5.4). The possible reasons could be the traditional disadvantaged context of parenting and maternal cognitive functioning that might indicate the higher score of maternal efficacy and satisfaction measures at the pre-test. After intervention, the mothers realised their gap in knowledge and understood the importance of child development and mother-child positive interaction in promoting healthy parenting. Therefore, they might show a relatively small

increase at the post-test. This study findings supported a previous review study by Jones and Prinz in 2005. They revealed the potential roles of parental efficacy in parent and child interaction and the role of cognitive functioning of parent in understanding behaviours and emotions within the family context. When the mothers' report of high parental self-efficacy were found to have the least developmental knowledge that indicated inappropriate interactions with their children (Jones & Prinz, 2005). That means, maternal efficacy was connected to their competence and competency reflected how much satisfied they were as parents.

Despite this study had non-significant effect on the Satisfaction measure, the intervention mothers reported improvement from pre to post-test. Such improvement could identify that these disadvantaged mothers felt pleasure and gratification for their parenting role by indicating an overall parenting sense of competence. Earlier studies also supported this finding by revealing the association between parental role satisfaction and competence as a parent (Coleman & Karraker, 2003; Ngai et al., 2010; Yang et al., 2020). Other studies identified that parents with a higher sense of competence and satisfaction practiced more positive behaviours such as showing warmth, responsiveness, involvement (de Haan et al., 2009) and establishing more secure relationship with children (Gondoli & Silverberg, 1997). Like these previous studies, this research also demonstrated the connection between parenting efficacy and satisfaction in order to perceive parental sense of competence. On both efficacy and satisfaction measures, intervention group showed consistency in improvements.

Literature suggested religion as influential factor in parenting sense of competence. Intrinsic religiosity and related activities might influence on maternal satisfaction level. As they were undergone with poor socioeconomic conditions, involving in religious activities could consider as resources for the mothers in order to handle the chaotic and distressed situations. This happened with the control group mothers who showed a small improvement from pre to post-test on the Satisfaction measure. Literature also supports the impact of religiosity on life satisfaction (Mirsaleh et al., 2011; You et al., 2019).

These group effects were changed when the researcher looked at the intervention group data on an individual levels (see table 6.3 in chapter 6). The mothers who benefitted the least from the intervention did not show improvements in compared to the most benefitted mothers. Interestingly, the least benefitted mothers had higher scores at pre-test than the most benefitted mothers. It might be possible that the least benefitted mothers dissatisfied with

their own performance as mothers after participating in the intervention. They might understand the importance of childcaring and learn a variety of childcaring strategies from the intervention which in turn realised them their struggling areas in parenting practices and scored low at the post-test. Sex of the target child of this research may influence the mothers on individual levels (table 6.2). The mothers of female children benefit more than the mothers of male children which is against the traditional childcaring beliefs and practices in Bangladesh. The possible reasons for the benefits of female children's mothers might be (i) the discussion on the importance of child development, (ii) the activities in the intervention such as sensitise mothers about the values of both children, identify child's qualities and share it with groups, and (iii) the gender of the facilitator who is also female and empowered as a female. All these factors might have an effect on mothers' perception about childcaring.

7.1.2 *Disadvantaged Mothers Reported Positive Changes in Parenting Practices and Mother- Child Interactions*

This sub-section of key findings discusses the changes in parenting practices and mother-child interactions. Positive parenting practices are measured by parenting skills and quality of home stimulation. Sub-section 5.3.2 represents the findings on parenting practices by the PAFAS, and the IT-Home inventory. Demonstrating positive changes in mother-child interactions are measured by both quantitative observational rating scale and qualitative observation (video-taped) which findings present in sub-section 5.3.3. Altogether, this sub-section makes a connection between positive parenting practices and quality mother-child interaction.

Demonstrating positive parenting practices with children have been stimulated the quality mother-child interaction. Significant improvements were found over the time for the positive parenting practices in terms of mother-child relationship (table 5.5) and emotional-verbal responsivity (table 5.6). Though this study did not find significant effect in maternal coercive practices, involvement with child, and mediated interaction constructs, however, the noticeable changes were found after receiving the ICDP intervention. From sub-section 7.1.1, it has been showed that parental efficacy and satisfaction are important constructs to make parents competent and practice positive parenting. Therefore, the mothers' sense of competence help them to establish positive relationships with the children. Previous ICDP effectiveness study in Mozambique revealed that the ICDP group parents reported higher life quality, more caring towards child, less parental mental health symptoms, less using severe

physical punishment, and fewer disruptive behaviours in child than the comparison group parents (Skar et al., 2014a). In this study, the research did not directly measure mothers' mental health symptoms though ICDP related studies (Abarashi et al., 2014; Dybdahl, 2001; González-Fernández et al., 2020; Skar et al., 2015) and Bangladeshi parenting intervention studies also considered maternal mental health measure (Tofail et al., 2023).

When mothers of this study reported avoiding of coercive practices such as smiling face with explanations for not giving the specific object, they better understood the child's needs, became more sensitive towards child, and guided child's actions in a more friendly way (see table 5.8). That means, instead of using corporal punishment and verbal abusive words, mothers showed more affectionate care and empathic to the child. In another way it could be said that mothers could handle their daily life stresses without showing any impulsive and/or irrational behaviour to the child. Such positive emotional responsiveness helped to establish a healthy, safe, and loving relationship between mothers and children (Hundeide, 2010; WHO, 1997). The impact of ICDP has also been investigated in low income country like Peru, reported reduction in parents' use of violence with their children indicating positive parenting practices after attending the ICDP intervention (Skar et al., 2017). In addition, mothers were also frequently used "giving praise to their children" strategies after attending intervention. As mothers observed that acknowledgement of the child's appropriate behaviour increased their tendency to do more and made them happy, then mothers recognised the importance of ICDP intervention. Practicing positive emotional interactions with children (that is demonstrating loving feelings, interactive talking, adapting, and praising) led to maintain a positive emotional mother-child relationship, enrich home stimulation, reduce child's aggressive and non-compliant behaviours and open up a window of maternal mediation and involvement with child's activities. Overall, these findings of this study indicated the importance of improving positive mother-child interaction in the context of disadvantaged families.

Increasing maternal involvement with child's activities in intervention groups were more reported and observed in this study in a way of focusing child's attention, giving meaning, and explaining to the joint task. Positive self-regulation of child's behaviour was another mediational interaction that was more practiced in intervention mothers than the control group mothers. Initially, mothers frequently used coercive strategies to control child's behaviour. After ICDP intervention, mothers identified that their children needs guidance, support, and opportunity to explore and make their own decisions. The mothers gave the

child opportunity to make his choices whether he would like to play with car or to draw with colours, helped him to plan step by step, and explained the activities while they were involved in a joint play. They also provided positive alternatives rather to prevent and/or saying "no" to the child by which mothers helped him to become sensitive and prevent disobey, crying, and shouting behaviours. This study findings on parenting practices were consistent with existing ICDP intervention-based evidence in which the researchers showed improvements in caregivers' involvement, understanding and accepting child's needs and wishes, positive image of a child, emotional sensitivity, and self-efficacy in promoting positive caregiver-child interaction (Brekke et al., 2023; Isaeva & Volkova, 2016; Sherr et al., 2014).

As like the group data effects of this study, the individual cases also identified the positive changes in mother-child parenting practices and interaction. The mothers who benefitted the most from this intervention showed positive changes in their parenting practices, such as showing love and affection, avoiding restricting coercive behaviour, maintaining good relationship with children, improving emotional interactions and mediational interactions (table 6.3). These positive changes might happen as the most benefitted mothers attended maximum number of intervention sessions. They were attentive, participatory, active, and interested throughout the session activities. Furthermore, the mothers who benefitted the most showed improvement in emotional and mediated interaction with children that implied healthy mother-child relationship at home (table 6.3). Literature supported these findings and found that maternal nurturing care and bi-directional interaction during early childhood could enhance overall quality of home environment that in turn reduced the negative impact of deprived conditions (Black et al., 2017).

Overall, the ICDP sessions facilitated the mothers of intervention group to become more sensitive and understandable towards children. This in turn helped mothers to develop positive conception to their child and strengthened mothers' self-confidence as caregivers.

7.1.3 *Mothers Reported their Conceptions towards Children*

A semi-structured interview guide was used to explore the changes in mothers' conception of the child. This kind of measure simultaneously reflected the changes in mothers' attitude as well as their parenting practices. When the mothers of this study asked to define their children at pre-interview phase, both intervention and control group mothers

reported child's qualities and inappropriate behaviours as their positive and negative conceptions of the child respectively (see sub-section 5.3.4). These conceptions might be triggered by maternal cultural contexts, transmission of own parental practices, and their existing parenting strategies. In line with this, literature of ICDP intervention revealed the same triggering causes of mothers' conception of their child (WHO, 1997). This was also congruent with Bronfenbrenner's theoretical perspective where the role of proximal processes of mother and child in the disadvantaged family context along with maternal values and parenting practices helped mothers to establish their conception of the child. That means, the person–process–context–time (PPCT) model of Bronfenbrenner indicated the joint function of the mother-child dyad (person) and the surroundings (context) were interacting in progressively more complicated ways over time (Bronfenbrenner & Morris, 1998; Hayes, 2021; Merçon-Vargas et al., 2020).

After analysing post-interview data, positive changes in mothers' conception of the child were found for the intervention mothers in compare to the wait-listed control group. The changes in mothers' conception of the child depended on the maternal sensitivity and emotional responsivity (WHO, 1997). This intervention research also identified maternal sensitivity and emotional responsiveness to the child as essential components of promoting mother-child positive interaction in sub-section 7.1.2. For an instance, when mother was adapting to the child's needs (sensitivity), that helped child to develop trust, to act, and to relate with other individuals. In turn, the mother developed positive conception of the child. In this study, both positive and negative changes were reported in the mothers' conception towards children measure between intervention and wait-listed control group (table 5.9 and 5.10). At the baseline assessment, intervention and control both group of mothers defined their children by focusing on appearance, characteristics, and negative behaviours. Their attitude towards children might be manipulated by maternal superiority, dominance and suppression as opposed to understanding and accepting a child. Similar parental conception of the child was found in baseline assessment of Russian ICDP intervention effectiveness study where parent showed impatience, demanding, and avoidance of contact with child (Isaeva & Volkova, 2016). After intervention, mothers got sensitised and more aware about the importance of identifying quality of child, following his/her needs and understanding of developmental outcomes. Children's motor abilities, socio-emotional relationship, and cognitive functioning (such as, language, exploration, memories and intelligence) were more found in the intervention mothers whereas control mothers talked less about child's abilities

and developmental aspects and more focused on child's aggressive and non-compliant behaviour.

By analysing mothers' interview statement and reviewing literature, the researcher explored some reasons of maternal negative conception towards child. The possible underlying reasons might be failure to establish a reciprocal interaction in mother-child dyad (Hundeide, 2010), adverse childhood experience of mothers such as, rejection, verbal and physical abuse, lack of responsiveness from own parents (Huang & Mossige, 2012), poverty, and lack of supportive network of family and friends (DeVito, 2010; Suplee et al., 2014). In case of negation conception, the child was considered as an object that means mother only concerned about basic needs of child such as fed him and clothed (sometimes child was unclothed and walking in bare foot) while the emotional and social needs were not addressed. Under such circumstances, the child was neglected and abused though purely some basic needs were attended to. In addition, the researcher also identified that the sensitive emotional aspect of the mother might fade out and move to the background in the mother's relationship to her child due to daily life stresses connected to poverty and lack of supportive network in nuclear family. It did not mean that the mother did not have these affectionate and warm feelings for her child nor she could not bring to her life again. That's why, this study did not impose parenting practices to the mothers rather it encouraged them to understand the importance of emotional sensitivity and reactivated while nurturing own children. As a result, intervention mothers were gradually aware of their own competence and skills and discovered the positive qualities of their children through the process of redefinition. More specifically, changing mothers' conception of their children from negative to positive was the method of redefinition that was a central tool in the ICDP intervention (Christie & Doehlie, 2011; Hundeide, 2010). In this study, the researcher used this method. The mothers who participated in this study were taken through a process of self-reflection and that in turn, encouraged them to develop a positive conception of their children and made them confident about their roles as mothers.

Recent parenting studies on Syrian refugee mothers and their preschool aged children showed that the maternal participation in intervention boosted up substantial changes in parenting practices and perceptions of child which in turn exhibited positive developmental changes in children. Remediation, redefinition, and reeducation were three aspects of mother-child reciprocity led these changes (Erdemir, 2021). In a Pilipino ICDP study, the researchers explored a possible explanation for the ICDP intervention effectiveness where the caregivers learned about positive disciplining strategies instead of using harsh discipline on their children. This changes were happened as the caregivers redirected towards positive disciplining strategies after recognising benefits in their daily caregiver-child interaction (Ramsli et al., 2023).

The researcher intensely viewed the intervention group data on an individual level. Though there was an overall positive changes in maternal conception for both the most benefitted and the least benefitted mothers (section 6.1 and 6.2), the negative maternal conception towards children were mostly reported by the least control group mothers. The possible reasons could be found in their monthly family income, family type, and living conditions. Mothers who the least benefitted from the intervention were housewives, having very poor family income with extended members, and temporary house that would be broken by heavy wind. Such hazardous context could hinder their thinking process and unconciously compel them to perceive their children with negativity. Previous studies confirmed that children growing up in deprived conditions were also exposed to multiple adversities which weakened their physiological response systems, inhibited self-regulation and stress management capacities (Black et al., 2017) and experienced to poor parenting practices, especially coercive parenting (Negrão et al., 2014).

In consistent with these previous evidence, this research considered the importance of maternal perception of their children as basic pillar of reactivating positive cultural parenting practices and improving maternal sense of competence. Therefore, this study indicated that the mothers has to be made aware of the child's positive qualities which would help them to be more sensitive and empathic towards needs of their children. For the better functioning of a child, it is important to have a mother's positive conception of the child that would help mothers to consider the child as an important entity with potential for development.

7.2 COMPREHENSIVE FINDINGS OF THE STUDY

The current study has examined the effectiveness of an 8-week ICDP intervention, focusing on the positive interaction between mothers and children in unfavourable live circumstances. This ICDP parenting intervention is designed and delivered by a certified facilitator to the disadvantaged families. These families experience social and economic hindrance that may have impact on their parenting practices; thereby having impact on their children's development. Therefore, the main focus of the ICDP is to identify and reactivate local cultural positive parenting practices that have been overlaid by personal and socio-economic stresses, such as extreme poverty, poor education, poor living conditions, and so on. This study aims to improve parenting skills, enhance parent-child positive interactions and promote maternal positive conceptions of their children. By sensitising caregivers' positive parenting practices, this intervention study have stimulated the developmental outcomes of their children in an authentic, sustainable, and long-lasting manner.

This section is a brief representation of research findings that depicts the significance of the ICDP intervention of this study. As this research data has obtained from both quantitative and qualitative measures, the sub-scales have showed improvements in intervention group whether the data are significant between intervention and control group mothers or not (see sub-sections 5.3.1 to 5.3.3.). In case of qualitative observation, noticeable changes are identified in demonstrating positive interactions after attending the intervention whereas small improvements show in the control group mothers. Changes in mothers' conceptions of their children, the intervention mothers report more focusing on child's development and less negative behavioural issues than the control mothers. A huge amount of data has been found from the mothers' feedback interviews which describe their experience of the intervention. The researcher condensed such large amount of feedback data in order to reflect mothers' experience of the intervention in section 4.2.

A broad picture of the research findings critically discusses in this Section 7.2. More specifically, sub-section 7.2.1 first highlights the impact of intervention as it was experienced by the mothers. Then, the researcher makes a curious effort to answer the bigger question in sub-section 7.2.2: How far the desired outcome of the intervention was met?

7.2.1 *Mothers' Experience of the Intervention*

The current sub-section focuses on mothers' experiences of this parenting intervention. Mothers' reactions include the aspects they learned from the intervention, the changes in parenting practices due to intervention experience, the difficult aspects of the intervention, and the aspects they reported enjoying about the intervention.

The mothers made comments about what they learned from the intervention, that is positive attitude towards child, sensitivity to the child, talk to the child, maternal mediation, and self-regulation. These comments reflecting the themes that also used in the ICDP intervention. Similar positive themes were emerged when the mothers talked about their positive parenting changes after receiving the intervention sessions. Especially, the mothers' reaction to the intervention directed changes in their parenting practices from coercive to showing love, from non-involvement to mediating children, and from ignoring child's needs to becoming sensitive towards child. Such intervention experiences clearly indicated educational benefits of the disadvantaged mothers who understood the importance of positive mother-child interaction, maternal sensitivity, and positive parenting practices. With respect to intervention difficulties, the mothers were mainly commented on the ice-breaking activity of the session, giving praise to group mothers, identifying qualities of their children, and reactivating own childhood memories. Memorising participants' name game was the first day ice-breaking activity in which mothers did not know each other; therefore, they had difficulty to memorise all group members' names at a time. The reasons for facing difficulty in identifying child's quality might be the maternal insensitivity and perceptions towards child. Due to cultural practice and childhood experience, this study mothers less understood their child's needs and benefits of using praise before attending the ICDP intervention. Therefore, childhood adverse memories had an effect in parenting practices which could make a connection between what they learned and what they changed in parenting due to attend the intervention.

This study demographics revealed a large number of intervention group mothers migrated from rural areas to the disadvantaged urban area because of their marriage and/or financial crisis. These mothers struggled in their lives and faced challenges in parenting practices as they had been moved to the slum area with poor economic conditions, changed family structure from joint to nuclear family, and their own adverse childhood experiences. Previous study findings showed that adverse childhood experience of mothers, especially those who were abused or witnessed to

abuse, have also negative effects on their children (Boden et al., 2007; Huang & Mossige, 2012; Mcmillan, 2001; Swick, 2005). In particular, children of mothers with adverse childhood experiences were identified at increased risk in terms of their neurodevelopment (Cortes Hidalgo, 2022), social relationships, psychological health, later educational outcomes (Huang & Mossige, 2012), and internalising behaviours such as anxiety and depression (Esteves, Gray, Theall, & Drury, 2017; Shih et al., 2021).

Such existing studies revealed an intergenerational transmission of adverse childhood experiences through which a mother's own childhood experience transmitted to her children. In line with the bio-ecological model, it can be stated that cultural and values system (i.e., coercive parenting, boy child considered as family asset) influence the childcaring strategies, shaping and transforming the way mothers perceive of their children (Bronfenbrenner, 1986; Snow, 1998). Therefore, transmission of childhood experiences, that is neglected child as a person, disengagement with child's activities, depreciation or no praise, harsh verbal discipline and/or physical punishment were visualised in mother-child dyads of this study. Mothers experienced such negative and coercive behaviour from their own mothers or caregivers. Subsequently, mothers forwarded these experiences to their young children leading them to exhibit aggressive and non-compliant behaviours (see sub-section 7.1.3). As a connection of adverse childhood memories, mothers reported several aspects of parenting practices that they learned from this intervention and helped them to bring changes in their childcaring strategies (i.e., avoiding physical punishment, using less verbal discipline, giving praise, involving in a shared task, providing explanation and mediation to understand the shared task), shaping their perceptions towards child, and becoming more adaptive with the child. This kind of behavioural and attitudinal changes of mothers could be a starting point of breaking transmission cycle of early childhood adverse memories.

Despite of some reported difficulties about intervention, the mothers commented about what they mostly enjoyed during the intervention. Their enjoying aspects were the materials and process of intervention delivery including video and pictorial materials of the intervention, pair work of demonstrating intervention themes, the ways of facilitator's session conduction as well as adjusting capacity with the participants, sharing own childcaring practice in the group discussion activity, and incentives that received on continuous (snacks for mother and children) and intermittent (educational materials and toys for children) modes. Interestingly, the mothers' interest towards intervention were reflected on their attendance rate that kept turning up each

week (section 4.1). Before starting the every session, the researcher gave session reminders to the participants, however, that might had a contribution to the higher intervention attendance. The question is whether this higher attendance rate continued due to intervention content, process of the delivery, reminders or receiving incentives at the end of the training session.

As the mothers recalled the same contents of ICDP intervention (section 4.2), it is worthwhile to say that they comprehended the essence of this intervention. Mothers reported that they changed their parenting practices as this intervention study brought sensitivity and positive perception towards young children. Existing study on early childhood parenting program in rural Kenya also supported and stated that perceived benefits of the program contents increased disadvantaged mothers' attendance in the intervention (Luoto et al., 2021). Therefore, conceptual understanding of mothers, motivation to learn new aspects of parenting, and child-friendly environment (child care facility during intervention) helped them to become attentive and encouraged to participate in the sessions. Delivery techniques of this study intervention were lecture methods with audio-visual components, participatory, interactive, interpersonal communication skills especially empathy towards mothers, active listening, verbal/non-verbal cues, and summarisation of the entire session which made mothers curious and engage in the sessions. Simultaneously, audio-visual materials, session activities, and provided practice-based homework educated them to perceive their children as unique individuals and sensitised to practice newly learned parenting strategies at home.

Consistent with mothers' experience of this intervention, recent parenting implementation quality study in rural Colombia revealed that the quality of intervention sessions was associated with the benefits to maternal parenting practices and child development leading to higher attendance in the intervention. More specifically, findings specified the importance of behavioural techniques in intervention implementation, that is, participatory and interactive methods, active learning techniques, making fun activities at session, and promoting positive relationships (Bernal et al., 2023). A Swedish parenting intervention integrity study revealed that parental perceptions toward facilitator as supportive and understanding were associated with parents' responsiveness and higher attendance rate at the intervention (Giannotta, Özdemir, & Stattin, 2019). Literature confirmed the requirement of reminders and incentives in the intervention until mothers saw its benefits in their family (Cavallera et al., 2019; Luoto et al., 2021). In line with these existing studies, this research indicated that the content of mother-child positive interaction, quality of intervention delivery, reminders, non-monetary incentives and the

personal and professional characteristics of intervention's facilitator created a group coherence where participants could easily learn new things, open up, and share own parenting experiences. These altogether kept holding mothers in the intervention sessions that led to greater benefits of parenting practices.

In this study, maternal poor education was an important demographic as it was considered a regular component of determining socioeconomic status (SES) of an individual. Educational qualification of these mothers was ranged from no schooling to ten years of schooling experience (see table 3.1). This data indicated poor educational qualifications of study mothers. Due to their gap in knowledge, these mothers did not know the importance of child development, had less stimulating home environment (no educational material and age-appropriate toys), and unstable family routines (meal times, bed time, activity time). That means, lower maternal education affected parenting practices of mothers and development of their children. Educating the ICDP concepts and quality parent-child interaction equipped mothers to bring changes in conception towards child, showing love and positive regards, giving praise, home environment, involvement with child in shared task, and family routines. Especially, learning family routines provided sense of belonging and predictable structure in children's life fostering healthy development. Intervention experience of mothers reflected that joint home activities might improve their children's behavioural, cognitive, and socioemotional development.

Previous research also supported the significance of higher maternal education with higher quality home learning and positive child outcomes (Awada & Shelleby, 2021; Hossain & Khan, 2018; Luoto et al., 2021; Martinez et al., 2022). A Thai research on parent-child interaction showed that parental lack of knowledge led to being less responsive towards their young children and parents who had adequate child development knowledge could better communicate with their children and promote healthy child outcomes (Chivanon & Wacharasin, 2012). An early childhood development and parenting study in Uganda confirmed this study findings by suggesting that increases in mothers' parenting education reduced in harsh corporal punishment and directed healthy developmental outcomes of children (Cuartas, 2021). Relate to these evidence, the researcher could conclude that maternal education was considered as determinant of parenting practices. The ICDP intervention delivered parenting contents that sensitised and enhanced maternal knowledge and practices on quality parenting and changed their conception towards young children.

Till now, the discussion of mothers' experience of the intervention reflected the implications of the disadvantaged living condition, importance of maternal education, and changes of traditional parenting practices. Mothers were quite positive about the intervention and said they had learned some important things of positive parenting, that is maternal sensitivity, positive conception to the child, maternal mediation for understanding the essence of the activity, elaborating the collaborative task, and helping child to become self-independent. Mothers were mostly liked the intervention delivery techniques, facilitator's adaptive behaviour and professional competency, and incentives that directed towards higher attendance in the intervention. However, such intervention experience of mothers was narrative that did not demonstrate the quantitative value of the intervention. The next sub-section 7.2.2 critically discussed whether this intervention attained its desired effects or not.

7.2.2 *Did the Intervention have the Desired Effects?*

In accordance with the quantitative findings, it is difficult to answer this question. As we have seen from chapter 3, this study was rigorously designed for collecting pre/post data and implementing the ICDP intervention with standardised procedure. Despite of all measures taken, the quantitative measures did not work well and indicated non-significant outcomes in most of the parenting constructs. From the quantitative measures, it was found that intervention mothers had relatively low parenting sense of competence and poor skills for parenting practices at the baseline measurement phase in compared to the control group mothers. This kind of unequal status could impact on overall effectiveness of the findings.

In light of this study moderators, the researcher makes a high-level discussion to ensure whether the intervention has desired effect or not. By reviewing sub-section 2.2.1, it can be said that the essential moderators of this research are the intervention content, participants, delivery mode, intensity of the intervention, staffing, targeting and recruiting families, and the community support for the intervention (Powell, 2006). Before starting the intervention, the researcher carefully considered all these factors to get the effective study outcomes. Some researchers cautioned further work was required to better understand possible moderating factors, such as socio-economic status, family stressors, and race/ethnicity (Long et al., 2009). Here, one of the strongest possible moderator of effectiveness was socio-economic status of the participants that was also confirmed by a meta-analysis of 63 parent-training studies (Lundahl et al., 2006). That means, the

disadvantaged mothers did not benefit from the intervention as like as their non-disadvantaged counterparts. This scenario was observed while the researcher comparing the most benefitted and the least benefitted mothers of this study. Though all mothers of this study were recruited from the disadvantaged area, the least benefitted mothers had temporary and risky household with very low family income in compared to the most benefitted mothers. The delivery format of the intervention that was another strong moderator as responsible for intervention effectiveness. Existing research revealed that training delivered in an individual format was more effective and successful for disadvantaged parents (Lundahl et al., 2006). This study used group method for delivering intervention which might have impact on its effectiveness. An individual mother has significant variations in terms of her ability to express herself while sharing about childcaring experiences. Therefore, specific intervention activities, that is, reactivating own childhood memories, identifying child's qualities, and role play substantially influenced the effectiveness of the intervention.

The findings of quantitative measures indicate whether the intervention is successful or not. Though the researcher used the widely known measures of PSOC, PAFAS, and IT-Home, some of their sub-scales had low alpha values. It indicated that the measures did not work well with the disadvantaged mothers. The underlying reasons could be directly attached with the properties of measurements and/or could be indirectly influenced on the measures by understanding the background of participants. In Satisfaction sub-scale of PSOC, there was no significant main effect that might be due to emphasise only on negatively worded items that could be difficult for underprivileged mothers to understand the accurate meaning of the statements. Cognitive functioning of the mothers could be varied due to their poor educational qualifications and lack of experience of participating in answering questionnaires. There might be a possibility to fabricate the answers when other family members were present and/or surrounded at the time of data collection. The very low alphas suggested strongly that the mothers were answering randomly. In Parental Consistency sub-scale of PAFAS, the Cronbach's alpha values were negatively scored in both pilot-testing and main field analysis. We know that Cronbach's alpha was related to the average correlation of an item with all other items in the scale (Moss et al., 1998). As Parental Consistency has only five items, yielded a low score. In this regard, it could be possible that items with very low inter-correlations might affect its alpha value. Due to negative alpha score, the researcher did not use it for the main study analysis. In case of IT-Home measure, there might be an effect of subjectivity as its scoring depended on the data collectors (whether the data collector

adequately observed the home environment or not). Similar issue might be occurred in scoring of Observational Rating Scale of Positive Interaction measure which scoring varied across the data collectors. In a recent Pilipino ICDP intervention study, the researchers used self-reported measures with low alphas. The possible reasons of low alpha scores they identified was the low number of questions and the small sample size. It could also be because they measured several dimensions of child maltreatment, and that would lead to a lower alpha score (Ramsli et al., 2023).

By summing up, the researcher discusses several possible confounding factors accounting for the low alpha value of the measures. These confounding factors are the nature of measuring instruments, socioeconomic status of the participants, and the power issue between the facilitator of the intervention program and the participants. In Bangladesh, most of the published parenting intervention studies were followed the medical model, using norm-referenced measuring tools along with self-report measures and qualitative observations (Aboud & Akhter, 2011; Nahar et al., 2012; Tofail et al., 2013). Instead of depending on too much self-reported measures, the researcher of this study may additionally rely on norm-referenced [such as Bayley Scales of Infant Development was used in other Bangladeshi studies (Nahar et al., 2012; Tofail et al., 2013) and the Wechsler Adult Intelligence Scale-Fourth Edition (Wechsler, 2008)] and criterion-referenced [such as Portage Guide to Early Intervention (Brue & Oakland, 2001) and Assessment of Basic Language and Learning Skills-Revised (Gabig, 2013)] measuring tools for assessing children's skills and mothers' cognitive abilities. In case of observational measures, the researcher may hire professional data collectors or spend more time and effort to train up the data collectors. Though all such alternatives may expensive and time-consuming for the researcher, the effect of the used measuring tools may have more significant outcomes. Along with the measuring tools, the disadvantaged and deprived contexts of women may have impact on intervention outcomes due to the existing power issues with the facilitator who do not belong to their same socio-economic context. Previous Bangladeshi studies conducted home-based intervention (Tofail et al., 2013) and the facilitators recruited from the same socioeconomic background of the participants (Nahar et al., 2012; Tofail et al., 2013). This was one of the important limitations of this study that the researcher could not notice at the time of designing it.

In case of mothers' conception to the child, their attitude and understanding towards children were changed in a positive manner from pre to post interview. As we did not conduct long time follow-up measurement, it was not possible to see whether such changes of mothers were sustainable or such changes found as an immediate effect of the intervention.

Overall, Section 7.1 highlights the "bigger picture" of this research. The bigger picture depicts partial success of the parenting intervention rather than just summarising key findings. The mothers' benefit from the intervention is dependent on several confounding factors such as mothers' poor educational background, disadvantaged living conditions, self-reported measures, and lower cognitive functioning while answering the questionnaires.

7.3 STRENGTHS AND LIMITATIONS

This study has been contributed to the field of early childhood in Bangladesh. Here, early childhood indicated one to three years old children whose mothers were recruited. As per the study context, recent provision of Bangladesh government, named the National Mental Health Strategic Plan 2020-2030, highlighted the training of parents in order to enhance children's developmental outcomes (Hossain et al., 2019; WHO, 2020). Such contextual background focuses the necessity of this parenting intervention for the benefit of young children. The current study focused on the eight guiding themes of parent-child interaction with the underprivileged mothers. This kind of parenting intervention, solely emphasising on positive interactions, is very limited in the database of Bangladeshi parenting programs. This study has been formed a parent-training framework that can be implemented on a larger scale with diverse group of mothers.

Section 7.3 focuses the strengths of study as well as its limitations in using quantitative measures for disadvantaged mothers. The strengths are indicated in terms of its study design and using qualitative measures to supplement the quantitative outcomes. Despite of maintaining standardised design, findings of this study indicated a partial effectiveness of the intervention. Several potencies of the study are briefly discussed in sub-section 7.3.1 and limitations are identified in sub-section 7.3.2.

7.3.1 *Strengths of this Study*

The main strength of this study was its design, that is, single blinded randomised controlled trial with wait-listed control group. The data collectors were unknown whether the participants allotted into intervention or into wait-listed group. Thus, the researcher received the genuine data from the participants as they did not influence by the data collectors. By comparing outcomes with wait-listed group, the improvements over time reported in this study may attribute to the direct result of their participation. This type of study design could achieve stronger evidence for the intervention.

A mixed method approach of data collection was another stronger aspect of this study. This is because of, mixed method reduces the weaknesses linked to single method, confirms data accuracy, and enriches our comprehension of the studied phenomena (Bentahar & Cameron, 2015; Johnson & Onwuegbuzie, 2004). Quantitative outcomes of this study helped to overcome the weaknesses of quantitative measures, for example, qualitative video-recordings of mother-child play interaction showed changes in mothers whereas the observational rating scale of positive interaction measures had non-significant effect on them. In addition to this, in-depth individual case studies were explored by critically scrutinising both quantitative and qualitative outcomes in which the researcher could clearly showed the characteristics that differentiate between six mothers who benefitted most and five mothers who benefitted least from the intervention.

Another strength was to adapt and conduct pilot testing for the quantitative measures and intervention module before starting the main study. The researcher prepared special pictorial scoring cards for illiterate participants while conducting both PSOC and PAFAS scales. In this study, pilot testing was a part of feasibility research that helped to determine adequacy of the research instruments and intervention protocol, to assess the proposed data analysis techniques for identifying problems, to prevent the unnecessary cost and time expenditures in the main study, and to adjust the research design (Machin et al., 2021; van Teijlingen & Hundley, 2002).

Moreover, the way of teaching intervention contents was a strength here. Teaching approach was focused on lecture and discussion method along with relevant activities to make the specific content understandable to the participants. In addition, audio-visual materials supported to comprehend the topics. Earlier researchers identified that active participation focused intervention (e.g., role-playing, sharing own experiences) was significantly more effective than single lecturing method (Smokowski & Bacallao, 2009).

Intervention delivery process was monitored by taking detailed notes of the entire training session in the log-book. RAs were trained and received regular supervision from the researcher about session notes. Previous intervention studies also revealed that intervention monitoring measure and supervision of intervention delivery were important predictors for the success of parenting intervention (Cavallera et al., 2019; Luoto et al., 2021).

Attendance levels were higher that was one of the strong points in this study. 74% of total intervention group participants (37 out of 50 mothers) were attended at least six sessions of the intervention that was a cut-off point for retaining participants for the final analysis. In particular, 21 mothers attended all eight sessions, 12 mothers attended seven session, and 4 mothers participated in six sessions of the intervention. Though such high rate of participation was satisfactory, the researcher required to make certain adjustments for maintaining the attendees' rate (see Section 3.5.6 and 7.4.1). Moreover, using regular (food) and intermittent reinforcers (toys and educational materials) was another strength of this study that might keep the attendance rate higher in the intervention (section 3.5.10).

Moreover, the strength of this research also relied on its theoretical framework, that is, Bronfenbrenner's bioecological model of human development. It was well evident that the proximal process of mother-child relationship along with their personal and contextual conditions could change over time (Bronfenbrenner & Morris, 2006). Mother-child relationship and interaction may influence by the ICDP intervention that explicitly identified in some mother-child dyads.

In addition to this, the ICDP intervention was grounded by attachment, mediated learning, and communication theories. These underlying mechanisms covered all aspects of childcaring in terms of positive interactions between caregivers and children. Overall, ICDP's simple, universal, and culture-friendly structure make its implementation flexible and adaptable for the underprivileged context of Bangladesh.

7.3.2 *Limitations*

Despite of potential contributions and strengths, this study has some limitations. The potential limitation of this study found particularly in its location. This study was conducted in a single setting that might restrict its findings for generalisation.

Quantitative measuring tools had drawbacks in disadvantaged mothers. This research relied on the self-report measures and observations of the RAs that were vulnerable to bias. As the participants had poor literacy levels, it could be assumed that their comprehension

about the content might be unclear to them. Thus, they might response randomly. It could also be said that the self-report data was sometimes misleading. The mothers' self-report responses might be overestimated comparing to their actual level. After attending the intervention, the mothers' responses might be underestimated their potentialities. Most of the self-report measures had low alpha levels though the researcher could cautiously use some of the low alpha measures. However, some measures could not use due to very low alpha values.

Here, the data collection conducted at two points of time, that is pre- and post-measurement. Possible inclusion of follow-up studies may be useful to see the long-time effect of the intervention. Therefore, sustainable improvement in mother-child interaction could not be identified in this study. The researcher could not design this study with follow-up measurement due to time constraint and lack of financial assistance.

Another drawback of this study was indicated by its place of data collection. That means, pre and post data collection conducted at the mothers' home setting where they surrounded by other family members or neighbours in some cases. Such environment might force them to alter or fabricate their responses.

Delivery mode of intervention, that is group intervention, could be another factor that limited the study findings (Lundahl, Risser, & Lovejoy, 2006). The group outcomes might have obscured changes at the individual level.

The current study could not analyse all recruited participants' data. Some of them did not participate at the time of post-test. Some mothers dropped out as they did not attend at least six intervention sessions out of eight.

In one hand, this study has robust design to increase the probability of effectiveness. On the other hand, lacking follow-up assessment reduces the chance to investigate the intervention effectiveness over longer period of time. Despite of widely used quantitative measures included in this study, the consistent low alpha values raise questions about using self-report measures in the underprivileged context of Bangladesh.

Furthermore, the power differential between the researcher as the intervention deliverer and the participants might have an effect on the outcomes. This power issue exists between two parties due to their demographics and socio-economic conditions. For example, the researcher is highly educated and belongs to privileged community whereas the mothers'

feedback about the intervention (at the end participants are living in the disadvantaged conditions with poor educational qualification. It might be possible that of each session) could be affected because of such power imbalance.

7.4 IMPLICATIONS AND FUTURE DIRECTIONS

The current study implemented an adapted version of the ICDP intervention. For the first time, this intervention applied for the Bangladeshi disadvantaged group of mothers who have children aged from one to three years old. On the above-mentioned section, the researcher discusses the strengths and weaknesses of this study. The current section indicates the future possibilities that may influence our parenting practices, policies, and advanced research.

7.4.1 *Implications for Practice and Policy*

This study has several practical implications for promoting mother-child positive interaction in the underprivileged context. It is important to provide parental knowledge about child development and the significance of maintaining positive interaction with their children. The ICDP parenting intervention demonstrated that the eight guiding themes are a means to improve mother-child quality interaction in terms of expressing love, adapting, talking, praising, focusing child's attention, giving meaning to the child's activities, explaining a shared task, and helping child to learn self-discipline. Moreover, this intervention demonstrated activities relating to positive conception towards children.

By participating in this intervention, the mothers of young children have improved their knowledge about child development, parenting skills and competencies. In this way, the researcher may introduce this intervention to the fathers of young children in the underprivileged context. Previous research also confirmed that the vital role of fathers in the

children's lives; for example, a father can be as developmentally supportive for the children by involving in a joint play, leading to learn socio-emotional competence, helping to reduce aggression and antisocial behaviour of the child (Cabrera & Roggman, 2017). Therefore, both parents can attend this intervention program and are given the opportunity to provide children with a good start in the disadvantaged and advantaged circumstances.

In addition, the researcher can include the home visits after completing the fourth session and the last session. In these home visits, the facilitator can summarise the training contents and helps the family to demonstrate the particular parenting skills to their children in the natural setting.

The researcher involved with the participants through the gatekeeper or non-government organisation (NGO). In future research, the NGOs particularly in the disadvantaged communities can consider funding the educational toys and picture books for making more psychosocial materials available to the families at home. These NGOs can inspire the families to take part in the parenting intervention in order to reactivate their positive parenting practices.

Government and community hospitals can also encourage parents to participate in parenting programs as per their needs. By considering the importance of parenting interventions, paediatric department and child development centre (CDC) of the Bangladeshi government medical colleges and hospitals motivate parents to engage themselves with the activities of their young children. In addition, such hospitals can also support parents to make their home environment safe and clean by sponsoring hygienic materials to the families who will visit hospitals for the health purpose of young children. Such initiatives by the government will be part of implementation of section 3(b) in the Child Care and Protection Act 2004 (MoJ, 2005; p.7).

From section 7.3.1, we know the higher participation rate of the mothers. The researcher adapted with the emerging situation to ensure the maximum attendance of the mothers. For example, the NGO's staff was included in the research team. The staff helped the researcher in two ways: visiting the participants' home half an hour earlier of the session and/or visiting if they were unavailable on the phone. The researcher also arranged an extra session for making up the participants' missed session. Such adjustments need to be adequately planned before conducting this intervention later on. Furthermore, an alternative

sessions' facilitator should be trained in case of illness or other emergency situations. Before scheduling the intervention program, the researcher needs to be kept in mind about public holidays and Ramadan so that participants' attendance does not hamper. Therefore, an implementation protocol requires to be updated to ensure the full program is offered.

Primary and secondary school authorities can arrange workshops on early childhood and positive interaction for the parents. In this way, schools' children indirectly play role for educating their parents by connecting parents and teachers. Moreover, schools can conduct the parent-teacher meeting for promoting students' well-being. The teachers may refer parents for participating in a formal parenting intervention for betterment of the students.

7.4.2 *Recommendations for Future Research*

Despite of the importance of early childhood, parenting and parenting intervention have not been addressed much in Bangladeshi studies. This study used self-report measures along with qualitative observation and interview. The study found influences on mothers' efficacy, mother-child relationships, maternal emotional conversation and mediated interaction with their children, and emotional and verbal responsivity towards children. In addition, the mothers conceived their children in terms of developmental potentials after attending the ICDP intervention. Section 7.3.2 has mentioned several weaknesses of this research from where some issues deserve further investigation in future research.

This research did not focus on measuring child's outcomes. In this study, the researcher assessed only mother's parenting competency, practice skills, and interaction quality with their children. To investigate the effectiveness of the intervention, the researcher may assess the children's behaviour and developmental skills so that the researcher can analyse both parties data for ensuring the improvements as a result of intervention.

In this research, only mothers were recruited as participants though fathers' role also influenced childcaring. Traditional Bangladeshi culture considers mother as the primary caregiver of a child. Despite of that, society cannot deny the role of the fathers while upbringing the child. Therefore, the future researcher may include both parents to see the impact of ICDP intervention.

The future researcher may design such intervention study with long-term follow-up assessment that is 3 to 6 months interval from post assessment. In addition, the researcher can

conduct intervention with large number of participants with more than one setting in order to generalise the findings.

The future researcher may also be cautious about selecting measuring tools. From the experience of this study, the researcher identified that self-report measures were problematic for the underprivileged participants due to their limited literacy levels and having high chances to respond randomly.

7.5 CONCLUDING REMARKS

The ICDP is a simple and universal parenting intervention for improving positive interaction between caregivers and children. In this study, the researcher recruited disadvantaged mothers who were mostly stayed at home and primary caregivers of their children. This intervention has been adapted for the participants of underprivileged context of Bangladesh. The ICDP is a relatively new implemented parenting intervention in Bangladesh though its conception has been started since 2012. Outcomes from baseline study of the ICDP enlightened us the importance of addressing such disadvantaged mothers of young children and the usability for the ICDP implementation (Ferdowshi & Pervin, 2019, 2020).

The main purpose of this study was to investigate the effectiveness of the ICDP intervention. Outcome measures of this study were assessed by quantitative and qualitative approaches. The PSOC, the PAFAS-Parenting, the IT-HOME, and the Observational Rating Scale on positive interaction were quantitative measures along with qualitative observations and interviews which assessed in the pre- and post-test phase. Overall, intervention mothers were showed improvements on most of the measures though only some of the measures had significant effects such as, Parenting Efficacy, Parent-Child Relationship, and Emotional and Verbal Responsivity measures. Qualitative observations also showed positive changes in emotional and mediated interactions for the intervention mothers. In case of interview findings, intervention mothers reported less negative behaviours of their children than the control mothers after taking part in the intervention. The findings of this study generally concur with the previous findings and add to the empirical data of the ICDP intervention studies that is building effective psychosocial support for the parents and professionals. Comparing to other renowned parenting interventions, for example Triple P and Incredible Years which aimed to reduce child's behavioural difficulties (reviewed in Chapter 2), this ICDP intervention strengthened the

conditions for upbringing and development of the child, supported and empowered mothers in their parenting practices by enhancing their competence as caregivers (Brekke et al., 2023). Therefore, this ICDP intervention has promising influence in the context of Bangladesh not only for the disadvantaged families but also important intervention for privileged and ethnic families, especially for mothers, fathers, and other significant caregivers and for teachers to improve interaction with students.

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Appendices

Appendix A: Example of Plan for the Intervention Meeting Sessions

Meetings' Theme	Main Content	Materials for Sensitization	Facilitators' Role	Participants' Role	Homework & Incentives
Show positive feelings	Introduce ICDP; introduce positive conception of the child; Why showing love is important for children; and session assessment	-Multi-media presentation; -Picture card showing love expression; -Activating childhood experience of receiving love from the parents	Building relationship with group members; Encouraging participants to share and express ideas; Presenting contents through visualization	Telling expectations, Group discussion, sharing, pair-work, individual work	**HW:** Observe your child at home and identify when you are showing your love to your child and how you express your love **Incentive:** 1 packet chocolate cake with tea
Adapt to child	Review of earlier one, discussion on homework, introduce how to adapt to the child, sensitize about positive conception of the child; and session assessment	Color papers, crayon, multi-media presentation, squiggle as role play	Inviting participants to share their own story; Encouraging them to participate in ice-breaking game and pair work; Helping them to use 'redefinition strategy' for describing children	Participating in ice-breaking and Squiggle game in pair, sharing their home experience, individual work on positive conception of their children	**HW:** "To adapt with your child's activities. You will try to identify- how your child reacts when you follow her/his initiative?" **Incentive:** A packet of biscuit with a cup of tea
Talk to child	Review of 1st and 2nd themes, discussion on last week's homework, introduce emotional talking to your child; and session assessment	Video clips, basket with full of tiny toys for symbolic play, role play of importance of talking to the child	Helping to review earlier meetings; Motivating to talk during session; Encouraging to tell their stories and participating in activities; Helping them to describe and analyze the video clips	Participating in ice-breaking activity-symbolic play, Sharing experience of home activity; Role play, Sharing	**HW:** "Telling story" and/or "reciting rhymes" to your child. **Incentive:** A packet of instant noodle and a cup of tea **Surprise Incentive:** Soft cat
Praise & Acceptance	Review of 1st to 3rd themes, discussion on homework activity, introduce new one, and session assessment	Multi-media presentation, video clip, identify own qualities as ice-breaking task, praising to the partner in pair work	Encourage to participate; Helping to recognize own practice of praising and acceptance; Helping them to describe and analyze the video on praising	Individual activity; Pair work for identifying different praising words; Group discussion	**HW:** Your task is to give praise to your child when he or she does something good or accomplished a task **Incentive:** A packet of choco chips and a cup of tea
Help to focus child's attention	Review of 1st to 4th themes, discussion on homework, introduce new one, and session assessment	Multi-media presentation, video, basket with full of tiny toys for object identifying game	Encouraging to review earlier meetings and participating in ice-breaking play; Helping to share from video clips	Sharing home task; discussion on video clip, participating game and activities	**HW: P**racticing theme 5. Please be aware which techniques are using. **Incentive:** Two packets of potato chips
Give meaning to child's experiences	Review of 1st to 5th themes, discussion on homework, introduce new one, and session assessment	Video, paper and color crayons	Encouraging to review; showing video to analysis; encouraging to share home-task and theme relevant experiences	Sharing home task; discussion on video clip, participating game and activities	**HW:** Noticing how you give meaning to your children's experience. **Incentive:** A packet of chanachur (crackers)
Elaborate and explain	Review of 1st to 6th themes, discussion on homework, introduce theme, and session assessment	Video, paper and color crayons	Planning shared activities to the participants; Showing video and encourage to analyze video; Helping to review this meeting	Reflection from own experiences	**HW:** Try to elaborate your child's experience at home during playing, meal, and bedtime. **Incentive:** 1 packet noodle and a cup of tea
Help to learn self-control	Introduce theme 8, closing by reviewing all meetings, photo session, and session assessment	Football for ice-breaking, Picture posters, Experience sharing	Reviewing all themes to the participants	Reflexive sharing, identifying 8 themes from poster pictures and giving feedback to the program **Incentives:** A picture card with 8 themes, learning material for the child, and a packet of biscuit.	

Appendix B: Demographic Information Questionnaire

1. Name of the Mother:
2. Age:
3. Birth Place:
4. Education:
5. Occupation:
6. Marital status:
7. Total no of Children, their Sex and Age:
8. Name of respective Child:
9. Age & Gender of respective Child:
10. Father's Name (child):
11. Father's Age:
12. Education:
13. Father's Occupation:
14. Family's total Income (Monthly):
15. Religion:
16. Previously attended any kind of parenting program.

Appendix C: Parenting Sense of Competence Scale (Gibaud-Wallston & Wandersman, 1978)

Please rate the extent to which you agree or disagree with each of the following statements.

Strongly Disagree	Somewhat Disagree	Disagree	Agree	Somewhat Agree	Strongly Agree
1	2	3	4	5	6

1. The problems of taking care of a child are easy to solve once you know how your actions affect your child, an understanding I have acquired. 1 2 3 4 5 6

2. Even though being a parent could be rewarding, I am frustrated now while my child is at his / her present age. 1 2 3 4 5 6

3. I go to bed the same way I wake up in the morning, feeling I have not accomplished a whole lot. 1 2 3 4 5 6

4. I do not know why it is, but sometimes when I'm supposed to be in control, I feel more like the one being manipulated. 1 2 3 4 5 6

5. My mother was better prepared to be a good mother than I am. 1 2 3 4 5 6

6. I would make a fine model for a new mother to follow in order to learn what she would need to know in order to be a good parent. 1 2 3 4 5 6

7. Being a parent is manageable, and any problems are easily solved. 1 2 3 4 5 6

8. A difficult problem in being a parent is not knowing whether you're doing a good job or a bad one. 1 2 3 4 5 6

9. Sometimes I feel like I'm not getting anything done. 1 2 3 4 5 6

10. I meet by own personal expectations for expertise in caring for my child. 1 2 3 4 5 6

11. If anyone can find the answer to what is troubling my child, I am the one. 1 2 3 4 5 6

12. My talents and interests are in other areas, not being a parent. 1 2 3 4 5 6

13. Considering how long I've been a mother; I feel thoroughly familiar with this role. 1 2 3 4 5 6

14. If being a mother of a child were only more interesting, I would be motivated to do a better job as a parent. 1 2 3 4 5 6

15. I honestly believe I have all the skills necessary to be a good mother to my child. 1 2 3 4 5 6

16. Being a parent makes me tense and anxious. 1 2 3 4 5 6

17. Being a good mother is a reward in itself. 1 2 3 4 5 6

Bangla Parenting Sense of Competence Scale

ক্রমিকনং	বিবৃতি	সম্পূর্ণ ভাবে দ্বিমত (১)	কিছুটা দ্বিমত (২)	দ্বিমত (৩)	একমত (৪)	কিছুটা একমত (৫)	সম্পূর্ণভাবে একমত (৬)
১	এই ধারনাটি আপনার হয়েছে যে- বাচ্চা যত্ন নেয়ার ক্ষেত্রে যে ধরনের অসুবিধা হয় সেগুলো দূর করা সহজ হয় যখন আপনি বুঝতে পারছেন আপনার কোন আচরণ তাকে প্রভাবিত করছে।						
২	একজন বাবা –মা হওয়া সুখকর জেনেও আপনি সন্তানের বর্তমান বয়স নিয়ে হতাশ।						
৩	রাতে ঘুমাতে যাওয়ার সময় এবং সকালে ঘুম থেকে উঠার সময় আমার মনে হয় আমার অনেক কাজ এখনো বাকি আছে।						
৪	আমি জানিনা কেন এমনটা হয়,কিন্তু কখনও কখনও মনে হয় যেখানে সব আমার নিজের আয়ত্তে থাকার কথা সেখানে আমি অন্যের দ্বারা প্রভাবিত হচ্ছি।						
৫	আমার চেয়ে আমার মা আরও বেশি প্রস্তুত ছিল ভালো মা হওয়ার জন্য।						
৬	আমি নতুন মায়েদের জন্য আদর্শ' তৈরি করব যার মাধ্যমে পরবর্তীতে তারা জানতে পারবে কিভাবে ভালো মা হওয়া যায়।						
৭	বাবা-মা হিসেবে যেকোনো সমস্যাই সহজে সমাধান করা যায়।						
৮	বাবা-মা হওয়ার ক্ষেত্রে একটি কঠিন সমস্যা হচ্ছে যে আপনি জানেন না যে কোনটি ভালো বা কোনটি খারাপ কাজ করছেন।						
৯	মাঝে মাঝে আমার মনে হয় আমি কোন কিছু ঠিক মত শেষ করতে পারছিনা।						
১০	আমার বাচ্চার যত্ন নেয়ার ক্ষেত্রে যে প্রত্যাশা ছিল সেগুলো আমি ভালভাবে পূরন করতে পেরেছি।						
১১	আমার সন্তানের কষ্টের কারন যদি কেউ জানতে চায়, একমাত্র আমিই সেটা ভালো বলতে পারি।						
১২	বাবা-মা হওয়ার চেয়ে আমার দক্ষতা এবং আগ্রহ অন্য বিষয়ে বেশী।						
১৩	মা হওয়ার পর থেকেই একজন মা হিসেবে আমার কাজগুলো সম্পর্কে আমি জানি।						
১৪	যদি সন্তানের মা হওয়া আরও আকর্ষনীয় হত,তাহলে আমি বাবা-মা হিসেবে আরও ভালভাবে কাজ করার আগ্রহ পেতাম।						
১৫	সত্যিকার অর্থে আমি বিশ্বাস করি , আমার সন্তানের একজন ভালো মা হওয়ার জন্য প্রয়োজনীয় সমস্ত গুণ আমার রয়েছে।						
১৬	বাবা-মা হওয়ার ফলে আমাকে দুঃশ্চিন্তা করতে হয়।						
১৭	ভালো মা হতে পারাটাই সুখের বিষয়।						

Appendix D: Parenting and Family Adjustment Scale (PAFAS)-Parenting

Please read each statement and select a number 0, 1, 2 or 3 that indicates how true the statement was of you over the past four (4) weeks. There are no right or wrong answers. Do not spend too much time on any statement.

The rating scale is as follows:

0. Not true of me at all

1. True of me a little, or some of the time

2. True of me quite a lot, or a good part of the time

3. True of me very much, or most of the time

1. If my child doesn't do what they're told to do, I give in and do it myself	0	1	2	3
2. I give my child a treat, reward or fun activity for behaving well	0	1	2	3
3. I follow through with a consequence (e.g. take away a toy) when my child misbehaves	0	1	2	3
4. I threaten something (e.g. to turn off TV) when my child misbehaves but I don't follow through	0	1	2	3
5. I shout or get angry with my child when they misbehave	0	1	2	3
6. I praise my child when they behave well	0	1	2	3
7. I try to make my child feel bad (e.g. guilt or shame) for misbehaving to teach them a lesson	0	1	2	3
8. I give my child attention (e.g. a hug, wink, smile or kiss) when they behave well	0	1	2	3
9. I spank (smack) my child when they misbehave	0	1	2	3
10. I argue with my child about their behaviour/attitude	0	1	2	3
11. I deal with my child's misbehaviour the same way all the time	0	1	2	3
12. I give my child what they want when they get angry or upset	0	1	2	3
13. I get annoyed with my child	0	1	2	3
14. I chat/talk with my child	0	1	2	3
15. I enjoy giving my child hugs, kisses and cuddles	0	1	2	3
16. I am proud of my child	0	1	2	3
17. I enjoy spending time with my child	0	1	2	3
18. I have a good relationship with my child	0	1	2	3

ক্রমিক নং	বিবৃতি	একেবারেই সমর্থন করি না(০)	একটু সমর্থন করি (১)	সমর্থন করি (২)	অনেক সমর্থন করি (৩)
১	আমার বাচ্চাকে কিছু করতে বললে সে তা না করলে আমি নিজে থেকেই তা করে দেই।				
২.	আমি আমার বাচ্চার ভালো আচরণের জন্য পুরুস্কার দেই।				
৩.	আমার বাচ্চা যদি খারাপ আচরণ করে তাকে শাস্তি দেই। যেমন- খেলনাটা কেড়ে নে।				
৪.	আমার বাচ্চা কোন খারাপ আচরণ করলে তাকে ভয় দেখাই (যেমন- টিভি বন্ধ করে দেব) কিন্তু শেষে তা করি না।				
৫.	যখন আমার বাচ্চা খারাপ আচরণ করে আমি রেগে যাই অথবা চিৎকার চেঁচামিচি ক।				
৬.	আমার বাচ্চা ভালো আচরণ করলে তার প্রশংসা করি।				
৭.	আমার বাচ্চা খারাপ আচরণ করলে তাকে শিক্ষা দেয়ার জন্য তাকে অপরাধী বা লজ্জিত অনুভব করানর চেষ্টা ক।				
৮.	ভালো আচরণ করার সময় আমি আমার বাচ্চার প্রতি মনোযোগ দেই (যেমন- জড়িয়ে ধরি, চুমু দেই, হাসি অথবা চোখ দিয়ে ইশারা করি)।				
৯.	যখন আমার বাচ্চা খারাপ আচরণ করে তাকে জোরে সশব্দে থাপ্পর দেই।				
১০.	আমি আমার বাচ্চার আচরণ / স্বভাব নিয়ে তার সাথে তর্ক করি।				
১১.	আমি আমার বাচ্চার খারাপ আচরণ গুলো সব সময় একইভাবে সামলাই।				
১২.	যখন আমার বাচ্চা মন খারাপ করে বা রেগে যায় তখন সে যা চায় আমি তাই দেই।				
১৩.	আমি আমার বাচ্চার উপর বিরক্ত হয়ে যাই।				
১৪.	আমি আমার বাচ্চার সাথে গল্প করি / কথা বলি।				
১৫.	আমি আমার বাচ্চাকে জড়িয়ে ধরা, চুমু দেয়া ও আদর করাকে উপভোগ করি।				
১৬.	আমি আমার বাচ্চার জন্য গর্বিত।				
১৭.	আমি আমার বাচ্চার সাথে সময় কাটানোটা উপভোগ করি।				
১৮.	আমার বাচ্চার সাথে আমার ভালো সম্পর্ক রয়েছে।				

Bangla version of PAFAS-Parenting

Appendix E: Infant-Toddler version of the Home Observation for the Measurement of the Environment (IT-HOME, Bangladeshi Version)

Organisation of Physical and Temporal Environment:

1. Who USUALLY looks after the child when mother is not around?
   >2 different people = **0**
   never leaves/ always the same person or no more than 2 different people=**1**
2. A person under 13 years of age sometimes looks after the baby.
   Yes, sometimes left alone or with a child <13yrs =**0**
   No always left with someone >12yrs =**1**
3. How often in a week does someone USUALLY take the child to any store?
   No or less than once a week =**0**
   Yes, once a week or more =**1**
4. How often is the child USUALLY taken out of the compound to a near distance in 7 days?
   not taken or less than twice a week= **0**
   twice a week or more=**1**
5. How often was the child taken to a far distance (out of city) in the last year (or 12 months)?
   not taken, or once only=**0**
   twice or more =**1**
6. How often does father USUALLY provide help with looking after the child in 7 days (WEEK)?
   If less than every day, or father not present =**0**
   Every day =**1**
7. Child's indoor play environment appears safe/free of hazards. No=**0** Yes=**1**
8. Indoor play environment appears clean. No=**0** Yes=**1**
9. Indoor play environment appears of reasonable size. No=**0** Yes=**1**
10. Outdoors play environment appears clean and safe. No=**0** Yes=**1**
11. Is the home attractive with picture/decorative pieces? No=**0** Yes=**1**
12. Is the home very dark? Yes =**0** No =**1**

Stimulation:

13. How often does the child USUALLY listen to radio/cassette in 7 days?
    Less than once a week or never =**0**
    Once a week or more =**1**
14. Does the child watch television? If yes how often does he USUALLY watch in 7 days?
    Never or less than once a week =**0**
    Once a week or more =**1**
15. At least three adult books or magazines (including religious books) present in the house (HAVE TO SEE THEM) (do not count school books)
    No=**0**
    Yes=**1**
16. At least three school text books present in the house (HAVE TO SEE THEM)
    No=**0**
    Yes=**1**

17. Does the mother USUALLY read book/newspaper/magazine in a week?
    Less than once a week or never =**0**
    At least once a week or Yes=**1**
18. Does father play structured games with the child. If yes how often DOES HE USUALLY PLAY in 7 days? (any game with some structure like playing with ball or peek-a-boo/pat-a-cake, nursery rhymes)

    Father absent, never plays or less than twice a week =**0**

    Twice a week or more=**1**

19. Is there another adult (not father or mother who is over 12 years) play with child? If yes how often DO THEY USUALLY PLAY? (any game with some structure like playing with ball or peek-a-boo/pat-a-cake, nursery rhymes)

    No adult or plays less than twice a week =**0**

    Yes plays twice a week or more =**1**

20. Do you receive guests at home? If yes how often DO THEY USUALLY VISIT in a month?
    None or less than twice a month =**0**
    Twice a month or more =**1**

    Maternal Involvement:

21. Did you (caretaker) sing a song/nursery rhymes to the child in the last week?
    No=**0**
    Yes=**1**
22. Did you (caretaker) tell stories to the child in the last week?
    Not tell stories last week =**0**
    Yes told stories =**1**

23. When you are busy doing household work how often do you chat (make conversation) with the child? If yes, then occasionally, most of the time or some of the time?
    No/Occasionally/ Some of the time =**0**
    Most of the time =**1**

24. In the last week did you teach your child anything like naming things? If yes how many days did you do this in the last week?
    None or less than every day=**0**
    Every day =**1**
25. In the last week, did the mother spend time playing with toys or things/objects with the child? If yes, how many days did you do this?
    No or only once =**0**
    Twice or more often =**1**
26. In the last week did the mother spend time playing structured games with the child? (any game with some structure like playing with ball or peek-a-boo/pat-a-cake, nursery rhymes)
    No or only once =**0**
    Twice or more often =**1**
27. In the last week did mother or any adult (over 12 years) give the child pen, pencil or crayon and paper to scribble?
    No=**0**
    Yes=**1**

28. In the last week did mother or any adult (over 12 years) look at pictures in a book or magazine with the child?

No=**0**

Yes=**1**

29. During the visit does mother organises activities for the child. (i.e. gives something to play with or gets someone to play with her etc)

No=**0**

Yes=**1**

30. During the visit mother keeps child within eyesight throughout all of the visit.

No=**0**

Yes=**1**

Play Materials (all to be observed but can probe by asking for each type)

Please can you show me what the child plays with/ include books, toys, household things, home-made toys)

31. Any home-made toy?

No=**0**

Yes=**1**

32. Does any adult give child household objects to play with (like spoon, bowl)? If yes, show me.

No or only single object at a time=**0**

Gives objects that can be combined (e.g. spoon and pot) =**1**

33. Has a picture book suitable for young child? (Must have pictures; do not count school books)

No=**0**

Yes=**1**

34. Any toy that can be used for construction/ stacking/ nesting (putting inside each other) like blocks, Lego etc?

No=**0**

Yes=**1**

35. Any toy requiring the use of fingers (small car, rattle, squeezy toy etc)

No=**0**

Yes=**1**

36. Any toy which causes the child to move around a lot like a pull along toy/push along toy or ball?

No=**0**

Yes=**1**

37. Any cuddly soft toy?

No=**0**

Yes=**1**

38. Any doll or role-playing toy (i.e. tea set, mobile phone-toy)?

No=**0**

Yes=**1**

39. Any toy that can make music?

No=**0**

Yes=**1**

40. Any special place to keep the toys?

No=**0**

Yes=**1**

41. Any other toy?

No=**0** Yes=**1**

Avoidance of Restriction and Punishment

42. Last week, did mother have to hit the child?

Yes=**0**

No=**1**

(all observations)

43. During the visit, did she threaten punishment?

Yes=**0**

No=**1**

44. During the visit, did mother hit /push or shake the child?

Yes=**0**

No=**1**

45. During the visit, did mother shout at the child?

Yes=**0**

No=**1**

46. During the visit, did she restrict the child's activities (except to keep out of danger)?

Yes=**0**

No=**1**

Emotional and Verbal Responsivity: (all observations, not to be asked)

47. During the visit mother usually responds verbally to child's vocalisations?

No=**0**

Yes=**1**

48. During the visit, did mother spontaneously vocalise to the child (i.e. initiate talking to child, not shouting or scolding)?

No=**0**

Yes=**1**

49. During the visit does mother begin talking to you about anything (i.e. does not only respond to your questions)?

No=**0**

Yes=**1**

50. During the visit mother expresses ideas well and freely to the interviewer?

No=**0**

Yes=**1**

51. During the visit did she spontaneously praise her child (i.e. not in response to your question)?

No=**0**

Yes=**1**

52. During the visit mother's voice conveys positive feelings towards the child?

No=**0**

Yes=**1**

53. During the visit did she caress/stroke head/kiss the child?

No=**0** Yes=**1**

54. During the visit does she complain about the child?

Yes=**0** No=**1**

Bangla version of Infant-Toddler version of the Home Observation for the Measurement of the Environment (IT-HOME)

পরিদর্শনের তারিখ /__/__/__/__/__/__/ **Name of the interviewer: _____**

Starting time : _____ Ending time : _____

সন্তানের নাম ঃ _____ মায়ের নাম ঃ _____

Organization of Physical and Temporal Environment

১. সাধারনত **মা ২ ঘন্টার বেশি সময় বাড়ির বাইরে থাকলে বাচ্চাকে কে দেখাশোনা করে?** I /__/

০= দুই এর অধিক ভিন্ন ভিন্ন ব্যক্তি

১ =সব সময় একই ব্যক্তি /মা সব সময় বাচ্চার সাথে থাকে/দুই জনের মধ্যে যে কোন একজন

২. ১২ বছরের কম বয়স্ক কোন ব্যক্তি কি বাচ্চাকে কখনো দেখা শোনা করে ? I /__/

০=হ্যাঁ ১২ বছরের কম বয়স্ক ব্যক্তির কাছে রেখে যায় /মাঝে মাঝে একা রেখে যায়,

১=না, সব সময় ১২ বছরের অধিক ব্যক্তির কাছে রেখে যায়

৩. **সাধারনত** প্রতি সপ্তাহে বাচ্চাকে কয় দিন দোকানে / বাজারে নিয়ে যান ? **I** /__/

০=না/ সপ্তাহে একবারও না, ১=হ্যাঁ, / সপ্তাহে একবার বা তার বেশি

৪. সাধারনত **প্রতি সপ্তাহে বাচ্চাকে কত বার বাড়ীর বাইরে কাছাকাছি কোথাও নিয়ে যান ?** I

০= নেয়নি/ ১বার নিয়ছি, ১=হ্যাঁ, দুবার বা তার বেশি নিয়ছি /__/

৫. গত ১ বছরে কতবার বাচ্চাকে দূরে কোথাও বাইরে বেড়াতে নিয়ে গিয়েছেন ? **I** /__/

০= নেয়নি/ ১বার নিয়ছি, ১=হ্যাঁ,দুবার বা তার বেশি নিয়েছি

৬. **সাধারনত** প্রতি সপ্তাহে কয় দিন বাবা বাচ্চার দেখা শোনায় সাহায্য করে (গোসল, কাপড় বদলানো, খাওয়ানো ইত্যাদি)। **I** /__/

০=না, প্রতিদিন করেনা/ বাবা নাই ১=হ্যাঁ, প্রতিদিন

৭. বাচ্চার ঘরের ভিতরে খেলার পরিবেশ নিরাপদ এবং বিপদমুক্ত। ০=না, ১=হ্যাঁ (যেমন বটি, চুলা, মাচা ইত্যাদি) **O** /__/

৮. বাচ্চার ঘরের ভিতরে খেলার পরিবেশ পরিস্কার পরিচ্ছন্ন। ০=না, ১=হ্যাঁ **O** /__/

৯. বাচ্চার ঘরের ভিতরে খেলার জায়গা খেলার জন্য যথেষ্ঠ । (ফ্লোরে সহজে চলা ফেলা/খেলতে পারে) ০=না, ১=হ্যাঁ **O** /__/

১০. বাচ্চার ঘরের বাইরে বা সামনে খেলার জায়গা পরিস্কার পরিচ্ছন্ন, নিরাপদ ও বিপদমুক্ত। ০=না, ১=হ্যাঁ **O** /__/

১১. ঘরের ভিতর বিভিন্ন ঘর সাজানোর জিনিস (ডেকোরেশন পিস) এবং ছবি দ্বারা সাজানো গোছানো। **E**

(যেমন- ফুলদানি, ছবি /ছবিসহ ক্যালেন্ডার কমপক্ষে দুটি) ০=না, ১=হ্যাঁ /__/

১২. ঘরের ভিতর খুব বেশী অন্ধকার। **O** ০= হ্যাঁ ১= না /__/

Stimulation

১৩. **সাধারনত** প্রতি সপ্তাহে কয় দিন বাচ্চা রেডিও বা মোবাইলে গান /ছড়া শোনে? **I** /__/

০=একেবারে শুনেনা/ সপ্তাহে একবারের কম শুনে , ১=একবার বা তার বেশি

১৪. **সাধারনত** প্রতি সপ্তাহে কয় দিন বাচ্চা টেলিভিশন দেখে? **I** /__/

০=একেবারে দেখেনা/ সপ্তাহে একবারের কম দেখে ১=একবার বা তার বেশি

১৫. কমপক্ষে তিনটি (৩) বড়দের বই বা পত্রিকা বা ম্যাগাজিন ঘরে আছে কি? (ধর্মগ্রন্থ সহ, তবে স্কুল বই ছাড়া) **E**

(স্বচক্ষে দেখতে হবে) ০=না, ১=হ্যাঁ /__/

১৬. কমপক্ষে তিনটি (৩) স্কুলের পাঠ্য বই ঘরে আছে কি? **E** /__/

(স্বচক্ষে দেখতে হবে) ০=না, ১=হ্যাঁ

১৭. **সাধারনত** সপ্তাহে কমপক্ষে একদিন আপনি বই, খবরের কাগজ বা পত্রিকা পড়েন ? **I** /__/

০=না, ১=হ্যাঁ

১৮. **সাধারনত** প্রতি সপ্তাহে কয় দিন বাবা বাচ্চার সাথে খেলেন ? (নিয়ম মেনে খেলা যেমন- বল, **I**

লুকোচুরি খেলা/ছড়া/হাততালি) (প্রোব করতে হবেনা) /__/

০=বাবা নাই/ কখনও খেলে না/ সপ্তাহে দুবারের কম , ১= সপ্তাহে দুবার বা তার বেশি

১৯. **সাধারনত** প্রতি সপ্তাহে কয় দিন বাবা/মা ছাড়া বাড়ীর (১২ বছরের উপরে) অন্য বড় কেউ বাচ্চার সাথে খেলেন ? **I**

(নিয়ম মেনে খেলা যেমন- বল, লুকোচুরি খেলা/ছড়া/হাততালি) (প্রোব করতে হবেনা) /__/

০=বড় কেউ খেলে না/ সপ্তাহে দুবারের কম, ১=সপ্তাহে দু'বার বা তার বেশি

২০. **সাধারনত** মাসে কতবার বাড়ীতে মেহমান/ আত্বীয়স্বজন আসে? **I** /__/

০=না/ মাসে দুবারের কম ১= মাসে দুবার বা তার বেশি

Maternal Involvement

২১. গত সপ্তাহে আপনি কি আপনার বাচ্চাকে গান বা ছড়া শুনিয়েছেন? **I** /__/

০ = না, ১ = হ্যাঁ

২২. গত সপ্তাহে আপনি আপনার বাচ্চাকে গল্প বলে শুনিয়েছেন? **I** /__/

০=না, ১=হ্যাঁ

২৩. আপনি যখন ঘরের খুঁটি-নাটি কাজে (রান্না বাড়া, ধোয়া ধুয়ি) ব্যস্ত থাকেন তখন বাচ্চাকে কাছে বসিয়ে **E**

ওর সাথে কথা (গল্পের ছলে কথাবার্তা) বলেন? **০= খুব কম, মাঝে মাঝে, ১ = বেশির ভাগ সময়** /__/

২৪. গত সপ্তাহে কতদিন আপনি আপনার বাচ্চাকে কিছু শিখিয়েছেন ? **I** /__/

(যেমন: কোন কিছুর নাম শিখা, হাত তালি) ০=কিছুই না/ প্রতিদিন না, ১= প্রতিদিন

২৫. গত সপ্তাহে কতদিন আপনি বাচ্চার সাথে কোন খেলনা বা জিনিস দিয়ে খেলেছেন ? **I** /__/

০=না /শুধু একবার, ১=দুবার বা তাব বেশি

২৬.গত সপ্তাহে কতদিন আপনি বাচ্চার সাথে খেলেছেন? (নিয়ম মেনে খেলা যেমন-লুকোচুরি, হাততালি, বল) **I** /__/

০=না/শুধু একবার, ১=দুইবার বা তার বেশী

২৭. গত সপ্তাহে আপনি বা বড় কেউ বাচ্চাকে (১২ বছরের উপর) আঁকাআকি করার জন্য কাগজ-কলম, পেন্সিল, রং পেন্সিল দিয়েছেন? **I** ০=না, ১=হ্যাঁ /__/

২৮. গত সপ্তাহে আপনি বা বড় কেউ বাচ্চাকে বই বা ম্যাগাজিনে ছবি দেখিয়েছেন? **I** /__/
০=না, ১=হ্যাঁ

২৯. সাক্ষাৎকার চলাকালীন সময়ে মা বাচ্চাকে শান্ত এবং ব্যস্ত রাখার জন্য কোন ব্যবস্থা করেছেন। **O** /__/
০=না, ১=হ্যাঁ

৩০. সাক্ষাতকারের পুরো সময় মা বাচ্চার দিকে খেয়াল রেখেছেন। **O** /__/
০=না, ১=হ্যাঁ

Play Materials

৩১. **ঘরের জিনিস দিয়ে খেলনা তৈরী করে** বাচ্চাকে খেলতে দেন? (যেমন ঃ কৌটার মধ্যে গুটি দিয়ে, **E**
বোতলের মধ্যে চাল বা পাথর ভরে দিয়ে) ০=না, ১=হ্যাঁ /__/

৩২. **বড় কেউ ঘরের জিনিস দিয়ে** বাচ্চাকে খেলতে দেয়? (যেমন- চামচ. বাটি) **E**
০=না/ শুধু একটা জিনিস দিয়ে , ১= ২/৩ টা জিনিস দিয়ে /__/

৩৩. বাচ্চার উপযোগী ছবির বই আছে ? (স্কুলের বই ছাড়া) **E** ০=না, ১=হ্যাঁ /__/

৩৪. বাচ্চার কি এমন **কোন কেনা খেলনা আছে যার বিভিন্ন টুকরো জোড়া দিয়ে জিনিস তৈরী করা যায়?** **E**
(যেমন- ঘর বানানো, সাজানো, একটার মধ্যে আরেকটা রাখা) ০=না, ১=হ্যাঁ /__/

৩৫. বাচ্চা কি এমন কোন খেলা খেলে যাতে **শুধু হাতের আঙ্গুল ব্যবহার করতে হয়?** **E**
(ঝুনঝুনি, গুটি, ছোট চাকাওয়ালা খেলনা, নরম খেলনা Squeezy toy) ০=না, ১=হ্যাঁ /__/

৩৬. বাচ্চাকে **ছুটোছুটি করে খেলতে হয় এমন কোন খেলনা আছে** কিনা ? (যেমন- সুতো বা লাঠি **E**
দিয়ে ঠেলার বা টানার কোন খেলনা বাবল)। ০=না, ১=হ্যাঁ /__/

৩৭. বাচ্চা কি **কাপড়ের বড় পুতুল বা অন্যান্য কোন নরম খেলনা (Cuddly toys) দিয়ে খেলা করে?** **E**
০=না, ১=হ্যাঁ /__/

৩৮. বাচ্চার কোন **পুতুল বা এমন কোন খেলনা সামগ্রী** আছে যা দিয়ে সে **বিভিন্নভাবে সেজে বা অভিনয় করে খেলতে পারে?**
(যেমন- হাড়িপাতিল খেলা বা মোবাইল ফোন দিয়ে খেলা) **E** ০=না, ১=হ্যাঁ /__/

৩৯. বাচ্চার এমন কোন খেলনা আছে যা দিয়ে গান-বাদ্য বাজানো যায়? (ঘন্টা, বাঁশি, ঢোল) **E** ০=না, ১=হ্যাঁ /__/

৪০. বাড়ীতে খেলনা রাখার নির্দ্দিষ্ট জায়গা আছে? **E** ০=না, ১=হ্যাঁ /__/

৪১. বাচ্চার এগুলো ছাড়া আর অন্য কোন খেলনা আছে ? **E** ০=না, ১=হ্যাঁ /__/

উল্লেখ করুন _____

Avoidance, Restriction and Punishment

৪২. গত সপ্তাহে আপনি বাচ্চাকে শাসন করেছেন ? কিভাবে ? (মা বাচ্চাকে মেরেছে কিনা জানা) **I** ০= হ্যাঁ ১= না, /__/

৪৩. পরিদর্শনের সময় মা বাচ্চাকে শাস্তির ভয় দেখিয়েছেন। **O** ০= হ্যাঁ ১= না /__/

৪৪.পরিদর্শনের সময় মা বাচ্চাকে মেরেছেন/ ধাক্কা দিয়েছেন/ ঝাঁকিয়েছেন। **O** ০= হ্যাঁ ১= না, /__/

৪৫. পরিদর্শনের সময় মা বাচ্চাকে বকা দিয়েছেন। **O** ০= হ্যাঁ ১= না, /__/

৪৬. পরিদর্শনের সময় মা বাচ্চার কাজকর্ম এবং চলাফেরায় বাধা দিয়েছেন । **O** ০= হ্যাঁ ১= না, /__/

Emotional and Verbal Response of Mothers

৪৭. পরিদর্শনকালীন সময়ে সাধারনত মা বাচ্চার কথার জবাবে কথায় উত্তর দিয়েছেন। **O**

০=না, ১=হ্যাঁ (যদি বাচ্চা কথা না বলে তাহলে উত্তর 'না' হবে) /__/

৪৮. পরিদর্শনকালীন সময়ে মা বাচ্চার সাথে স্বতঃস্ফূর্তভাবে কথা বলেছেন। (তবে বকা দিযে বা ভয় দেখিয়ে না) **O**

০=না, ১=হ্যাঁ /__/

৪৯. পরিদর্শনকালীন সময়ে মা সাক্ষাতকার গ্রহণকারী সাথে অন্য যে কোন বিষয়ে কথা বলেছেন। **O**

০= না ১= হ্যাঁ /__/

৫০. পরিদর্শনকালীন সময়ে মা তার মনের ভাব সহজে এবং সুন্দরভাবে প্রকাশ করেছেন। **O**

(শুধু 'হ্যাঁ' বা 'না' নয়) ০=না, ১=হ্যাঁ /__/

৫১. পরিদর্শনকালীন সময়ে মা স্বতঃস্ফূর্তভাবে তার বাচ্চার গুনাবলী বা ব্যবহারের প্রশংসা করেছেন। **O**

০=না, ১=হ্যাঁ /__/

৫২. পরিদর্শনকালীন সময়ে যখনই মা বাচ্চার সাথে কথা বলছে তখন তার বলার ভিতরে আদর ও উষ্ণতার ভাব প্রকাশ পেয়েছিল। **O**

০=না, ১=হ্যাঁ /__/

৫৩. পরিদর্শনের সময় মা বাচ্চাকে আদর করেছেন, হাত বুলিয়েছেন বা চুমু দিয়েছেন। **O** ০=না, ১=হ্যাঁ /__/

৫৪. পরিদর্শনকালীন সময়ে মা বাচ্চার বিরুদ্ধে অভিযোগ করেছেন। (গর্বের সাথে নয় বিরক্তির সাথে) **O** ০= হ্যাঁ, ১=না /__/

Appendix F: Observational Rating Scale

1. Emotional Interaction between Mother and Child

I. Sensitivity to child

Definition: The degree to which the mother's behavior is in tune with that of the child and how well the mother's behavior reflects awareness of the child's cues, signals and affective state. The scale measures the extent to which parent behavior is in synchrony with the child and **how well she reads the child's behavior, adjusts with the child** as well as **shows positive feelings and love** to the child.

1	2	3	4	5
Very low sensitivity	**Low sensitivity**	**Moderate Sensitivity**	**High**	**Very high sensitivity**
Mother is not in tune with the child and does not read the child's behavior well. E.g. mother ignores or does not notice child's bids for attention, mother does not anticipate child's reactions or parent's initiations are intrusive.	Mother understands a little about child's behavior. E.g. mother does understand some of the cues.	Some clear moment when the mother is in tune with child. However, the mother does not always seem aware of or responds.	Mother understands most of the behavior of the child. E.g. Mother understands when the child wants attention	Mother is always tune with child and reads the child behavior well. E.g. interpretation is paced appropriately without intrusion; mother anticipate child's reaction and cues the child need to attend.

II. Talking with the child

Definition: The degree to which the mother talks with the child verbally and nonverbally **about things the child is interested in and initiates a "feeling dialogue**". Simultaneously to what extent the child communicates with the mother emotionally. Talking/communication are measured by the frequency and intensity of positive contact and emotional conversations, for example- eye contact, smiles, gestures, sounds and disclosure of personal feelings and secrets which go back and forth between mother and child.

1	2	3	4	5
Very low talking	**Low talking**	**Moderate**	**High**	**Very high talking**
Mother doesn't communicate with the child in a meaningful and/or intimate (emotional) way. E.g. Mother and child do not communicate while they do something together or share an activity, such as playing, story-telling, making food etc.	Mother communicates with the child a little.	Mother communicates with the child in some specific moments. However, mother does not always involve in feeling/intimate dialogue with the child or initiate to talk with the child what he is interested in.	Mother communicates with the child intensely most of the time.	Mother always communicates with the child by verbally and nonverbally. E.g. Mother and child communicate while they do joint activities; maintaining eye-contact, touching child in a consoling way, disclosure of personal feelings etc.

III. Acceptance of the child

Definition: The degree to which the mother approves of the child and the child's behavior. Acceptance is measured by the frequency and intensity of positive affect expressed by praising and confirming toward the child for child's accomplishment and the level of approval expressed either verbally or non-verbally.

1	2	3	4	5
Very low acceptance	**Low acceptance**	**Moderate acceptance**	**High**	**Very high acceptance**
Mother does not show any positive emotion towards the child. Mother's affect is neutral or negative. E.g. there are few smiles and no praise are given; or disapproval is overtly expressed.	Mother shows very few positive affect and rarely provides praise to the child.	In general, the mother shows positive affect and approval in interactions with the child. Some praise is given. There are minimal negative reactions or corrections expressed to, or about, the child.	Mother is very much connected with the child. E.g. mother gives hug or claps to the child's achievement.	Mother frequently expresses approval to the child with an appropriate intensity and gives praises for ordinary behaviors. E.g. all interactions with the child are characterized by smiles, nods, and positive comments that provide encouragement.

2. Mediated Interaction between Mother and Child

I. Mother's effective engagement to child

Definition: The degree to which the mother effectively engages the child in activities and support the child's learning at a developmentally appropriate level. The scale measures the extent to which **the mother gains and maintains the child's attention, cooperation and participation in a way of expanding child's experiences such as giving them meaning, explanations and telling stories**.

1	2	3	4	5
Very low effectiveness	**Low effectiveness**	**Moderate effectiveness**	**High**	**Very high effectiveness**
Mother is ineffective in gaining the child's ongoing cooperation and there is lack of support for the child's learning. E.g. there is little direction or modelling of actions for the child, or parent is overly directive and child resists participation.	Mother supports in child's activities in a very limited frequency.	Mother is successful in gaining the child's attention and engagement. However, there are occasional lapses where parent does not monitor the child's behavior or insufficient support is given to participate through modelling or prompting	Mother engages the child in activities and maintains attention most of the time. E.g. Tell stories to the child. The child asks questions regarding the story such as "then, what happened?"	Mother effectively gains engagement and cooperation and uses teachable moments the child's learning across the session. E.g. mother allows child appropriate independence but is ready to step in the child, at any time, and provide verbal or nonverbal prompts.

II. Children's responsiveness to the mother

Definition: The degree to which the child positively interacts with the mother verbally and/or nonverbally. The scale measures the frequency and quality of the child's initiations to the parent for attention and the child's willing cooperation or responses to the parent's signals. In addition, the scale also measures the duration and participation of the activities in which materials capture the child's attention and interest during the joint activities, like playing, story-telling, reciting rhymes etc.

1	2	3	4	5
Very low Effectiveness	**Low effectiveness**	**Moderate effectiveness**	**High**	**Very high effectiveness**
Child displays neutral or negative affect towards the mother and does not seek the mother's attention. Responses to mother's initiations may be brief or ignored. E.g. child is non-compliant or only responds when the mother is persistent.	Hardly ever the child expresses positive attitude towards the mother.	In general, the child shows positive affect in interactions with the mother. Child responds to most parent initiations and directions and seems at ease when the mother is close by.	Child is spontaneously engaged with the mother. E.g. child response when the mother calls.	Child engages with the mother very positively and always responds to the mother's initiations with attention. E.g. the child is affectionate towards the mother and draws parental attention to accomplishments. Child is always compliant in following parental directions.

III. Mother's guidance to achieve self-regulation

Definition: The degree to which the mother guides and directs the child to learn self-discipline. The scale measures the frequency and nature of how the mother helps the child to set limits in a positive way through make a step-by-step planning, showing positive alternatives of actions according to the situations and providing gradual support (scaffolding) to the child.

1	2	3	4	5
Very low effectiveness	**Low effectiveness**	**Moderate effectiveness**	**High**	**Very high effectiveness**
Mother doesn't show any guidance/ directions and support to the child. E.g. mother doesn't model the task so that the child knows how to do it; does not give any positive alternatives for doing the task; does not provide any explanations regarding the necessity of set up rules and regulations (in case of learning games rules, independence of self-care like dressing up, having food etc.).	Mother guides and supports the child occasionally. Shouting and negative commands of mother are visible instead of explanations for why certain things are not allowed.	In general, the mother provides support to the child in achieving the task or solving any problem. There are some clear moments when the mother does model of the activity, provides positive alternatives of the task, and gives explanations for specific rules and regulations	Most of the time, the mother directs and supports the child.	Mother always guides the child in step-by-step planning an activity and doing problem solving by using alternative positive ways. Mother constantly supports the child by using scaffolding technique to achieve the target goals. E.g., mother applies scaffolding support strategy by providing hints, demonstrations, and leading comments during playing situation like, building a tower with blocks; mother challenges the child one step ahead so that the child must stretch himself to reach the target goal

Appendix G: Observer's Assessment of Mothers' Participation during Intervention (Session by Session)

In order to make this assessment it is helpful to consult the diary that the observers keep as a record of each of the session held with mothers.

The observer's assessment of the mother's commitment in participating in the sensitisation training:

a) The observer's assessment of the mother's interest in the training:

1 2 3 4 5

I----------I----------I----------I----------I----------I

Very low low moderate high very high

b) How active was the mother during training?

1 2 3 4 5

I----------I----------I----------I----------I----------I

Very low low moderate high very high

The observer's description of the mother as a caregiver for the child

1. Spontaneous description of the mother/caregiver

Try to describe how you evaluate this person as a caregiver for the child.

What kind of caregiver would you say this person is?

In the same way as before, translate the description into adjectives and write them down in the list below:

List of observer's descriptions of the person as caregiver:

1.

2.

3.

Appendix H (a): Interview Guide -Mothers' Conception to the Child (Pre/Post with Intervention/WLC Group)

(The mother's spontaneous description of her child)

1. As a mother, can you tell me how your child is?
2. Which qualities do you see in your child?

(After the mother has given her spontaneous description translate her description into adjectives and note them down in the list below. Let her finish without influencing her in any way.)

List of spontaneous descriptions of the child:

1.
2.
3.

Mother's conceptions of her child's strengths and weaknesses:

1.
2.
3.

Appendix H (b): Interview Guide– Overall Program Evaluation (Post/Intervention Group)

1. What are the most important things you learned from this intervention?
2. What did you like most about the intervention?
3. In what ways has your parenting of your child changed as a result of the program?
4. What strategies are you now going to use with your child that you learned in the program?
5. What kind of difficulties did you face with this program?

Appendix H (c): Interview Guide– Daily Session Evaluation (During training for both groups)

1. What do you like the most from the session?
2. What is your learning?
3. What do you find difficult?
4. Is there anything that you feel should be improved or changed?

Appendix I (a): Ethical approval from QUT

Ethics application - approved - 1800000979
Research Ethics (HUMAN) <humanethics@qut.edu.au>

Fri 11/01/2019 8:12 AM

Dear Prof Linda Gilmore and Mrs Nafiza Ferdowshi

Ethics Category: Human - Committee
UHREC Reference number: 1800000979
Dates of approval: 9/01/2019 to 9/01/2022
Project title: Development, implementation and evaluation of a parenting intervention to promote mother-child interaction in underprivileged families in Bangladesh

Thank you for submitting the above research project for ethics review.
This project was considered at a recent meeting by the Queensland University of Technology (QUT) Human Research Ethics Committee (UHREC).

I am pleased to advise you that the above research project meets the requirements of the National Statement on Ethical Conduct in Human Research (2007) and ethical approval for this research project has been granted.

Please find attached the Research Governance Checklist.
Please ensure you address any items you identify as relevant to your research project.
This email constitutes ethics approval only.
If appropriate, please ensure the appropriate authorisations are obtained from the institutions, organisations or agencies involved in the project and/or where the research will be conducted.
The UHREC wishes you every success in your research.

Research Ethics Advisory Team, Office of Research Ethics & Integrity
on behalf of the Chair, UHREC
Level 4 | 88 Musk Avenue | Kelvin Grove
+61 7 3138 5123 | humanethics@qut.edu.au
The UHREC is constituted and operates in accordance with the National Statement on Ethical Conduct in Human Research (2007) and registered by the National Health and Medical Research Council (# EC00171).

Appendix I (b): Ethical clearance letter from University of Dhaka

Professor Dr. M. Imdadul Hoque
Dean
Faculty of Biological Sciences
The University of Dhaka
Dhaka-1000, Bangladesh

Tel: 58613243, 9673387 (Office)
PABX: 9661900-73/4355, 7545
Fax: (+880-2)-8615583
E-mail: mimdadul07@yahoo.com
deanbio@du.ac.bd

Ref. ..70...../Biol.Scs./2018-2019 **Date: 14.11.2018**
৩০ কার্তিক, ১৪২৫

Ethical Review Committee

Nafiza Ferdowshi
Assistant Professor
Department of Educational and Counseling Psychology
University of Dhaka
Dhaka-1000, Bangladesh

Sub: Ethical Clearance.

Dear Nafiza,

With reference to your application on the above subject, this is to inform you that your research proposal entitled **"Development, implementation and evaluation of a parenting intervention to promote mother-child interaction and child development in Bangladesh"** has been reviewed and approved by the Ethical Review Committee of the Faculty of Biological Sciences, University of Dhaka.

I wish for the success of your research project.

Professor Dr. M. Imdadul Hoque
Dean, Faculty of Biological Sciences
University of Dhaka
Dhaka-1000.

Appendix I (c): Data collection permission letter from NGO

13 August 2018

To
AKM Mustaque Ali
The Executive Director
INCIDIN Bangladesh
Subject: Permission for recruiting PhD research participants and using space for intervention program

Dear Sir,

With due respect, I would like to inform you that I am a joint PhD student of Queensland University of Technology (QUT), Australia and University of Dhaka, Bangladesh. My thesis title is "Development, implementation and evaluation of a parenting intervention to promote mother-child interaction in underprivileged families in Bangladesh". As part of my research, I would like to recruit participants from 2 slum sites through your organization. Approximately I will approach 100 mothers of children 1 to 3 years old to collect data at two points of time, that is pre-assessment and post-assessment at their home setting. Simultaneously, I will deliver an 8-week group intervention program to the mothers dividing into 8 small groups. For that reason, I would also like to have permission for using your space in order to recruit participants at the beginning of October and conduct intervention meetings with participants from end of October 2018 to end of January 2019.

It would be grateful if you give me permission to collect data and provide necessary environmental support (space for intervention conduction) for my research.

Sincerely yours,

Nafiza Ferdowshi
Assistant Professor
Department of Educational & Counselling Psychology
University of Dhaka
Contact no. +880-1712 636212

Wed, Sep 26, 2018, 2:30 PM

Md. Musfiqur Rahman <sabbir.incidinb@gmail.com>

to me

Dear Nafiza Apa,

Greetings from INCIDIN Bangladesh!

Thanks for selecting INCIDIN Bangladesh for your PhD research. Regrading your inquiry, we are informing you that we will provide all sort of support related to your work.

However, we have to maintain some protocol regarding CSP (Child Safeguarding Policy) which will be shared with you soon. Plz share your schedule with us so that we can accommodate your requirement.

For any further inquiry feel free to contact with me. Stay fine!

Regards

Md.Musfiqur Rahman
Operation Chief & CRG Focal person
INCIDIN Bangladesh
8/19 Sir Sayeed Road, Mohammadpur, Dhaka- 1207
Email : sabbir.incidinb@gmail.com
Mobile # 08801817123919

Appendix J: Research Information Sheet

অংশগ্রহণকারীদের জন্য যৌথ গবেষণা প্রকল্পের তথ্য

- সুবিধাবঞ্চিত পরিবার (মূল অংশগ্রহণকারী হিসেবে মা)-

Development, implementation and evaluation of a parenting intervention to promote mother-child interaction in underprivileged families in Bangladesh

QUT Ethics Approval Number 1800000979

গবেষণা দল

প্রধান গবেষক:	নাফিজা ফেরদৌসী পিএইচডি শিক্ষার্থী	
সহকারী গবেষকবন্দ:	অধ্যাপক লিন্ডা গিলমোর	প্রধান সুপারভাইজার
	অধ্যাপক সু ওয়াকার	এসোসিয়েট সুপারভাইজার

কুইন্সল্যান্ড ইউনিভার্সিটি অব টেকনোলজি (QUT)

অধ্যাপক শাহীন ইসলাম	বহিরাগত সুপারভাইজার

এডুকেশনাল এন্ড কাউন্সেলিং সাইকোলজি বিভাগ, জীব বিজ্ঞান অনুষদ, ঢাকা বিশ্ববিদ্যালয়

বিবরণ

এই গবেষণা প্রকল্পটি নাফিজা ফেরদৌসীর পিএইচডি- এর অংশ হিসেবে করা। প্রকল্পটির উদ্দেশ্য হল প্যারেন্টিং ইন্টারভেনশনের উন্নয়ন, বাস্তবায়ন ও মূল্যায়নের মাধ্যমে বাংলাদেশের সুবিধাবঞ্চিত অঞ্চলের মা ও শিশুর মধ্যে ইতিবাচক পারস্পরিক যোগাযোগ বৃদ্ধি/ ধারণাটি পরিচিত করা। আপনি (মা) এই গবেষণা প্রকল্পে অংশগ্রহণকারী হিসেবে আমন্ত্রিত; কারন আপনিই আপনার শিশুর মূল পরিচর্যাকারী, এক থেকে তিন বছর বয়সী সন্তানের মা ও সুবিধাবঞ্চিত এলাকায় বাস করছেন।

অংশগ্রহণ

আপনাকে নিজের সম্পর্কে ও কিভাবে সন্তান লালন-পালন করছেন সেই বিষয়ে কিছু প্রশ্নের উত্তর দিতে হবে। আমরা আপনার বাড়ীতে গিয়ে এ বিষয়গুলো জানবো ও আপনার সন্তানের সাথে আপনার খেলাধুলা দেখবো। আমরা আপনাদের খেলার সময় ভিডিও করবো। মোট এক ঘন্টা তিরিশ মিনিটের মতো সময় লাগবে। কেবল নারী গবেষকেরাই আপনাদের বাড়ীতে যাবেন। প্রথমবার বাড়ীতে পরিদর্শনের পর, অংশগ্রহণকারীরা প্রতি সপ্তাহে একটি দলীয় মিটিং- এ অংশগ্রহণ করবেন আট সপ্তাহের জন্য। মিটিং –এর সময় দুই ঘন্টা এবং নিয়মিত উপস্থিতি খুব

গুরুত্বপূর্ণ। মিটিং চলাকালীন সময়ে আপনার শিশুর সাথে ইতিবাচক পারস্পরিক যোগাযোগ বৃদ্ধি করার গুরুত্ব, কিভাবে ইতিবাচকভাবে সন্তান পালন করতে পারেন এবং সন্তানের সাথে কিভাবে সম্পর্ক উন্নয়ন করার যায় সে সম্পর্কে জানতে পারবেন।

আট সপ্তাহ পর, আমরা আবার আপনার বাড়ীতে যাব কিছু প্রশ্ন করতে এবং আপনাকে ও আপনার শিশুকে আবারও পর্যবেক্ষণ করতে। এই পর্যবেক্ষণের সময়ে আপনার একটি ছোট সাক্ষাৎকার আমরা অডিও রেকর্ড করবো। দলীয় মিটিং- এ অংশগ্রহণের আগে কিছু পরিবারে দু'বার করে বাড়ীতে পরিদর্শন হবে। আমরা আপনাকে ব্যাক্তিগত কিছু প্রশ্ন করবো যেমন- নাম, বয়স, মোট সন্তান সংখ্যা।

আমরা আপনাকে জিজ্ঞেস করবো একজন অভিভাবক হয়ে আপনি কেমন অনুভব করেন, যেমন, 'একজন ভালো মা হওয়ার জন্য আমার মা আমার চেয়ে বেশী প্রস্তুত ছিল' ও 'মা হওয়া ....., ও যেকোনো সমস্যা সহজেই সমাধান করা যায়'। শিশু পালন নিয়ে অন্যান্য প্রশ্নের মধ্যে থাকবে ' আমি আমার সন্তানের প্রশংসা করি যখন সে ভালো আচরণ করে'।

আপনাদের জানা দরকার যে এখানে অংশগ্রহণকারীদের দুটি দল হবে; একদল হবে ইন্টারভেনশন দল ও অন্যটি হবে অপেক্ষমান নিয়ন্ত্রন দল। দুই দলের মধ্যে পার্থক্য হবে যে ইন্টারভেনশন দল ৮ সপ্তাহের প্রশিক্ষণে প্রথম বাড়ি/ গৃহ পরিদর্শনের পরই অংশগ্রহণ করবে। অন্যদিকে, অপেক্ষমান নিয়ন্ত্রন দল দ্বিতীয়বার বাড়ি/ গৃহ পরিদর্শন পর্যন্ত অপেক্ষা করবে তারপর তারা প্রশিক্ষণে অংশগ্রহণ করবে। এই গবেষনায় অংশগ্রহণ করতে সম্মত হলে, আমরা আপনাকে বলবো আপনি কোন দলে থাকবেন।

এই গবেষণায় আপনার অংশগ্রহণ পুরোপুরি স্বেচ্ছায়/ আপনার ইচ্ছা। যদি আপনি অংশগ্রহণ করতে সম্মত হন তবে পরে কোন কথা বা ক্ষতিপূরণ ছাড়াই আপনি চাইলে গবেষণা কার্যক্রম থেকে নিজেকে প্রত্যাহার করতে পারেন। আপনার অংশগ্রহণ করা বা না করার সিদ্ধান্ত কিউইউটি বা ঢাকা বিশ্ববিদ্যালয় বা ইন্সিডিন বাংলাদেশের (বেসরকারী সংস্থা যেখান থেকে অংশগ্রহণকারীদের নেয়া হবে) সাথে বর্তমান বা ভবিষ্যৎ সম্পর্কে কোন আঁচ পরবে না।

প্রত্যাশিত সুবিধাসমূহ/উপকারিতা

এই গবেষণা কার্যক্রম থেকে প্রত্যাশা করা যায় শিশুর পরিচর্যা বিষয়ে সরাসরি জ্ঞান লাভ করা আপনার শিশুর সাথে যুক্ত হওয়ার গুরুত্ব পারবেন, এবং সর্বোপরি, ৮ সপ্তাহ দুই ঘন্টার এ নিয়মিত উপস্থিত থাকার মাধ্যমে শিশুর ইতিবাচক যোগাযোগ উন্নয়ন করা।

ব্যাপক অর্থে, এই কার্যক্রম থেকে শেখা বিষয়গুলো আপনার অন্যান্য পরিবারের সদস্যদের সাথে আপনার ইতিবাচক

যে যাবে, বুঝতে মিটিং- সাথে

যোগাযোগে সাহায্য করতে পারে।
গবেষণা দলটি আপনাকে এই গবেষণার অংশ হবার জন্য ধন্যবাদ স্বরূপ ছোট্ট উপহার দিবে; যেমন- এক প্যাকেট কেক, বিস্কুট ইত্যাদি।

ঝুঁকি

এই গবেষণায় অংশ নেবার ফলে আপনার দৈনন্দিন জীবনে কোন ঝুঁকি নেই। এখানে অংশ নেয়ার ফলে আপনার পারিবারিক দায়িত্ব থেকে কিছু সময় দিতে হবে। মায়েরা তথ্য সংগ্রহের ভিডিও ও অডিও রেকর্ডিং এর সময়ে উদ্বিগ্ন বোধ করতে পারেন। ৮ সপ্তাহে দুই ঘন্টা নিয়মিত উপস্থিত থাকা আপনার ও আপনার পরিবারের উপর সময় সংক্রান্ত চাপ ফেলতে পারে।

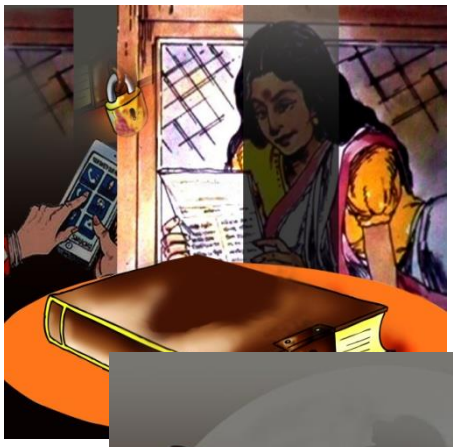
আপনার সক্রিয় অংশগ্রহণ ও ব্যাক্তিগত অভিজ্ঞতা আলোচনা করা, আপনার গোপনীয়তা রক্ষা নিয়ে সংশয় তৈরি করতে পারে। সেশনে অংশগ্রহণের ফলে আপনি চাপ বা ক্লান্ত বোধ করতে পারেন যা অন্যান্য পরিবারের সদস্যদের উপর প্রভাব ফেলতে পারে।

আপনার দৈনিক রুটিনে ব্যাঘাত কমাবার জন্য গবেষক তথ্য সংগ্রহের সময় ও সেশন নিয়ে আলোচনা করবেন। তথ্য সংগ্রহের সময় কোন বিষয় বুঝতে না পারলে আপনাকে সাহায্য করবে গবেষক দল।

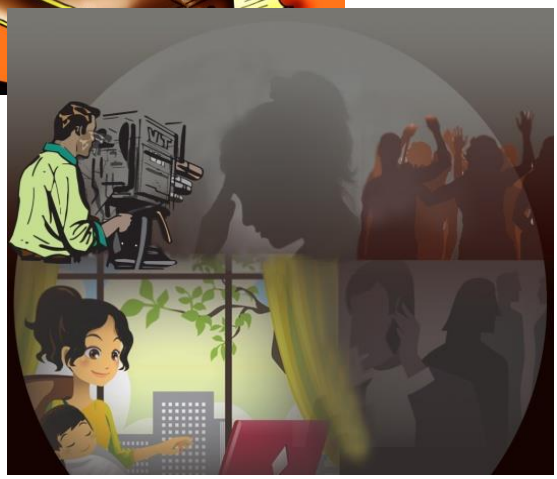
সংগৃহীত ভিডিও ও অডিও রেকর্ডিং-এ মা ও শিশুর নাম, ছবি কেবল গবেষক ও তত্বাবধায়ক পর্যন্ত সীমাবদ্ধ থাকবে। মিটিং এর সময় গবেষণা দল এনজিও কেন্দ্রে একজন অভিজ্ঞ শিশু পরিচর্যাকারী ঠিক করবেন আপনার সন্তানকে দেখাশোনা করার জন্য।

যদিও আপনার পরিবারে অনেক দায়িত্ব আছে, আপনার নিয়মিত উপস্থিতি আপনার শিশু ও পরিবারের অন্যান্য সদস্যদের সাথে আপনার যোগাযোগ উন্নত করবে।

গোপনীয়তা



যাবতীয় মন্তব্য ও প্রতিক্রিয়া গোপন রাখা হবে যতক্ষন না আইন, রেগুলেটরি বা মনিটরিং বডি, যেমন- নিতিমালা/ নৈতিক কমিটি প্রয়োজন বোধ না করে।



সম্মতিপত্র ও তথ্য তালাবদ্ধ নথিতে থাকবে ও ইলেক্ট্রনিক তথ্য পাসওয়ার্ড সংরক্ষিত কম্পিউটারে থাকবে। এই তথ্য একমাত্র গবেষণা দলই ব্যবহার করবে। সংগৃহীত তথ্য পরবর্তীতে গবেষণা দল জার্নালে প্রকাশনা বা গবেষণা কনফারেন্স-এ উপস্থাপন করতে পারে। প্রকাশনা বা উপস্থাপনের সময় পরিবার, মা বা শিশুকে চিহ্নিত করা যায় এমন কোন তথ্য থাকবে না।

গবেষণা প্রকল্পে অডিও ও ভিডিও রেকর্ডিং অন্তর্ভুক্তঃ

- রেকর্ডিং ৫ বছর পর নষ্ট করে ফেলা হবে কিউইউটি'র তথ্য ব্যবস্থাপনা নীতি অনুযায়ী
- অন্য কোন উদ্দেশ্যে রেকর্ডিং ব্যবহার করা হবে না
- কেবল নাফিজা ফেরদৌসী (মূল গবেষক) ও তত্বাবধায়কদের হেফাজতেই রেকর্ডিং থাকবে
- এই গবেষণা প্রকল্পে অংশ নেয়া সম্ভব না যদি রেকর্ডিং এ সম্মত না হন।

যেকোনো তথ্য নিরাপদভাবে সংরক্ষিত থাকবে কিউইউটি'র গবেষণা তথ্য ব্যবস্থাপনা পলিসি অনুযায়ী। মনে রাখবেন, অ-

শনাক্তযোগ্য তথ্য ভবিষ্যতে কোন গবেষণা প্রকল্পে তুলনামূলক তথ্য হিসেবে ব্যাবহার করা হতে পারে।

অংশগ্রহণের সম্মতি

যদি আপনি অংশগ্রহণে ইচ্ছুক হন তবে আপনাকে অনুরোধ করবো আপনার অংশগ্রহণ নিশ্চিত করতেসম্মতিপত্রে সাক্ষর করতে (সংযুক্ত)।

আপনার সঙ্গী (আপনার সন্তানের পিতা) বা অন্য উল্লেখযোগ্য পরিবারের সদস্যকে একই সম্মতিপত্রে সাক্ষর করতে হবে আপনাকে এই প্রকল্পে অংশগ্রহণের অনুমতি দেয়ার জন্য।

প্রশ্ন/ গবেষণা প্রকল্প সম্পর্কে আরও তথ্য

যদি কোন প্রশ্ন থাকে বা আরও তথ্য জানতে চান তবে উল্লেখিত গবেষকদের একজনের সাথে যোগাযোগ করুনঃ

নাফিজা ফেরদৌসী n.ferdowshi@hdr.qut.edu.au +8801712-636-212

ড. লিন্ডা গিলমোর l.gilmore@qut.edu.au

ড. শাহীন ইসলাম shaheen.islam8@gmail.com +880 1911-321-608

পরামর্শ/ গবেষণা প্রকল্প বিষয়ে অভিযোগ

কিউ ইউ টি ও ঢাকা বিশ্ববিদ্যালয় সততা ও গবেষণা প্রকল্পের নৈতিক আচরণ/ নিয়মাবলী মেনে চলার বিষয়ে প্রতিশ্রুতিবদ্ধ। তারপরও যদি কোন চিন্তার বিষয় বা অভিযোগ থাকে তবে আপনি স্থানীয় জীব বিজ্ঞান অনুষদে (ঢাকা বিশ্ববিদ্যালয়) যোগাযোগ করতে পারেন এই নম্বরে +880 2 9673387 এক্সটেনশন 4356

এই গবেষণা প্রকল্পে সাহায্য করার জন্য আপনাকে ধন্যবাদ।
এই কাগজটি আপনার তথ্যের জন্য সংরক্ষণ করুণ

Appendix K: Participant's consent form

যৌথ গবেষণা প্রকল্পের সম্মতিপত্র
-মা ও পরিবারের সদস্য-

Development, implementation and evaluation of a parenting intervention to promote mother-child interaction in underprivileged families in Bangladesh

QUT Ethics Approval Number 1800000979

গবেষণা দল

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অধ্যাপক লিন্ডা গিলমোর l.gilmore@qut.edu.au
অধ্যাপক সু ওয়াকার sue.walker@qut.edu.au
School of Early Childhood and Inclusive Education, Faculty of Education
কুইন্সল্যান্ড ইউনিভার্সিটি অব টেকনোলজি **(QUT),** অস্ট্রেলিয়া
অধ্যাপক শাহিন ইসলাম shaheen.islam8@gmail.com +880 1911 321 608
এডুকেশনাল এন্ড কাউন্সেলিং সাইকোলজি বিভাগ, জীব বিজ্ঞান অনুষদ, ঢাকা বিশ্ববিদ্যালয়

সম্মতির বিবৃতি

তথ্য সংগ্রহকারির প্রতি **নির্দেশনাঃ** তথ্য সংগ্রহকারি **মাকে** পড়ে শোনাবেন যেন নীচের বিবৃতি গুলো মা পরিস্কার ভাবে বুঝতে পারেন; প্রয়োজনে উদাহরণ দেবেন, পুনরাবৃত্তি করবেন, ধীরে ধীরে একের পর এক বিবৃতি উপস্থাপন করবেন এবং যারা নিজে

নিজে পড়তে চায় (মা, বাবা/ পরিবারের অন্যান্য সদস্য) তাদের সাহায্য করবেন।

নীচে সাক্ষর করার মাধ্যমে আপনি সম্মতি দিচ্ছেন যেঃ

- এই গবেষণা প্রকল্পের তথ্য পড়ে/ শুনে বুঝেছেন।
- আপনার প্রশ্নের সন্তোষজনক উত্তর পেয়েছেন।
- আপনি এও জানতে পেরেছেন, আপনার আরও কোন প্রশ্ন থাকলে গবেষণা দলের সাথে যোগাযোগ করতে পারবেন।
- বুঝতে পেরেছেন যে কোন মতামত বা ক্ষতিপূরণ দেয়া ছাড়াই তথ্য সংগ্রহের ৪ সপ্তাহ পর আপনি চাইলে আপনার অংশগ্রহণ প্রত্যাহার করতে পারেন।
- বুঝতে পেরেছেন যে, এই গবেষণায় আপনার কিছু কথা ও শিশুর সাথে খেলার সময়কার রেকরডিং করা হবে ।
- বুঝতে পেরেছেন যে, ভবিষ্যতে গবেষণার ফলাফল প্রকাশনা এবং অন্য কোন গবেষণা প্রকল্পে তুলনামূলক তথ্য হিসেবে আপনার তথ্য গুলো ব্যবহার করা হতে পারে (আপনার পরিচয় গোপন রাখা হবে)।
- বুঝতে পেরেছেন যে যদি প্রকল্পের নিতিমালা/ নৈতিকতা নিয়ে কোন চিন্তার বিষয় বা অভিযোগ থাকে তবে জীব বিজ্ঞান অনুষদ এথিক্স কমিটিতে (ঢাকা বিশ্ববিদ্যালয়) যোগাযোগ করতে পারেন এই নম্বরে +880 2 9673387/ ext. 4356 বা, স্থানীয় গবেষণা তত্বাবধায়ক ড. শাহীন ইসলামের সাথে যোগাযোগ করতে পারেন এই নম্বরে +880 1911 321 608।
- এই গবেষণা প্রকল্পে আপনি অংশগ্রহণ করতে সম্মত। একিসাথে, বাবা বা পরিবারের অন্যকোন সদস্য গবেষণা প্রকল্পের উদ্দেশ্য বুঝতে পেরেছেন এই মর্মে মা ও শিশুর অংশগ্রহণের সম্মতি জ্ঞাপন করে সাক্ষর করবেন।

মায়ের নাম ও সাক্ষর _____

তারিখ _____

পরিবারের সাক্ষর ও তারিখ _____

দয়া করে সাক্ষর করা সম্মতিপত্র গবেষকের কাছে ফেরত দেবেন

Appendix L: Qualitative Findings

Table L1

Thematic Analysis of Aspects of the Interventions Most Liked by Mothers from Individual Sessions

Content-focused themes	Mothers' statements (identity codes)
Positive conception of the child	1. "Showing respect to the child" (130) 2. "Telling the qualities of my child" (001)
Showing love to the child	1. "Showing love to the child" (110) 2. "How to show love to the child. Earlier I thought that love could not be expressed" (133)
Adapting to the child	1. "Always try to adjust with my child. I will feed my child with showing love instead of scolding him" (063) 2. "How to follow child's demands" (125)
Elaborating on joint task	1. "Show interest at child's activities and explain the task" (007) 2. "Jointly drawing" (062)
Activity-focused themes	**Mothers' statements (identity codes)**
Ice-breaking activities	1. "I like the naming game" (105) 2. "I like drawing a bird" (118)

Childhood sensitisation	1. "I feel good when I shared my childhood story to another person" (044) 2. "I remember my childhood memories through making paper boat. I feel good and joyous. I did it after a long time." (033)
Video activities	1. "When mother talks to her daughter that video" (128) 2. "First part of video where child is playing (cooking) with mother" (107)
Role-play	1. "Role play of mother and child" (107) 2. "I like drawing as a child" (129)
Practice praising	1. "Praising each other in a pair" (059) 2. "I heard my praise in a pair" (118)
Identify themes from picture card/posters	1. "The posters that show to us" (007) 2. "That picture work by which I identify how to show love to the child" (033)

Table L2

Thematic Analysis of Mothers' Learning Contents from the Intervention (Feedback from Individual Sessions)

Content-focused themes	Mothers' statements (identification codes)
Positive conception of the child	1. "Show respect to the child" (062) 2. "Take care of the child and make her happy" (054)
Sensitivity to the child	1. "My child is happy when I hug him and give him some toys" (092) 2. "When the child does something good, then I will praise her. For example, if she dresses up nicely, *you look so beautiful*." (111)
Talking to the child	1. "Exchange emotional conversations with the child" (110) 2. "Show love to the child by talking to him" (093)
Focusing attention	1. "How to help my child to focus attention. Focus him on the toys so that he can sit with and I also play with him" (110) 2. "How to help my child to be attentive" (111)
Giving meaning	1. "I show my interest in the child's task and describe her about the task" (118) 2. "Help my child to do his activities by telling what he is doing" (062)
Elaborating joint task	1. "I help child to do her hair style by showing, explaining, and using physical prompt" (006) 2. "Explaining how to play with cooking with utensils and feed her" (001)

Helping self-discipline	1. "How to do activities on own, for example eating? food" (108) 2. "Explain to the child about the right behaviour" (129)

Activity-focused themes	Mothers' statements (identification codes)
Ice-breaking activities	1. "How to make toys for the child using papers" (084) 2. "Using a ball as a toy" (001)
Video activities	1. "The mother teaches her son about body parts of the chick" (079) 2. "The child learns her hair set up with the help of mother" (006)
Identify qualities of the child	1. "Focusing on the qualities of the child while redefining bad behaviour" (033) 2. "Telling a child about her positive qualities" (128)
Practice praising	1. During praising practice with another mother, "I know and understand her qualities" (101) 2. "Praising each other" (088)

Table L3

Thematic Analysis of Mothers' Learning Contents from the Intervention (Feedback from End of the Intervention)

Responses	Sub-Themes	Themes
1. Good behavior with the child	Develop Positive Perception about the Child	**Positive Conception of the Child**
42. How to behave with the child		
32. Show respect to the child		
21. Understand child's cues/mental states		
27. Be aware of the child		
19. Give attention with the child		
41. Give attention to the child		
29. Learn/know about the child		
6. Take care of children, e.g., feeding, bathing, maintaining hygiene		
31. Spend time with the child		
25. Make child aware about the dangerous goods at home		
2. Avoid hitting to the child	Avoid Coercive Parenting	
14. Give explanation to the child instead of hitting		
22. Avoid scolding/using abusive language to the child		
23. Avoid showing anger		
3. Show love/adore to the child	Demonstrate Positive Feelings	
46. Express happiness (feelings) to the child		
7. Follow child's lead	Adapt to the Child	
41. Adjust to the child		

26. Keep dangerous goods out of children		**Sensitivity to the Child**
33. Take child for the outing to keep quiet		
24. Give praise and acknowledgment to the child's accomplishment	Give Praise & Acknowledgment	
9. Tell stories/rhymes		**Talk to the Child**
17. Talk to the child/intimate talking (focus feelings)		
18. Share/tell mother's childhood memories to child		
4. How to behave with others/teach appropriate behavior		**Self-Regulation**
11. Learn child to become independent		
34. Explain child about right and wrong		
37. Take positive control over the child		
30. Help/teach child to talk nicely		
13. Help child to do his activities (scaffolding)		
20. Help child to focus attention	Focus Attention	**Maternal Mediation**
36. Naming to the objects when bring to the home		
16. Help to improve child's interest (towards talking, food)		
35. Give meaning to the child's activities	Give Meaning to Child's Activities	
8. Give explanation to the child		
10. Teach alphabets/numbers/naming objects to the child		
5. Play with the child	Elaborate Joint Task	
38. Help child to play with toys		
39. Jointly play with the child		
40. Help the child in a joint event		

Table L4

Thematic Analysis of Aspects of the Interventions Most Liked by Mothers (Feedback from End of Intervention)

Responses	Sub-Themes	Themes
1. Gain new knowledge about child caring/development	Child Care Knowledge	**Positive Conception to the Child**
17. Take care of child (shower, meal)		
21. Be aware of negative consequences of the punishment		
27. We can use our training knowledge to the child		
23. Behave gently and nicely with the child	Positive Perception about the Child	
24. Show respect to the child		
28. Give priority and importance to the child		
31. Better understand of the child (liking, disliking, feelings/how to make child happy)		
3. Teach behavior to the child about how to behave in front of the relatives/adults		**Self-Regulation**
16. Help child to do daily activities, e.g., dress up, self-feeding, combing		
29. Set positive limits, boundaries, and control over child		
30. Help child to do his activities		
5. Talk to the child		**Talk to the child**
15. Tell stories to the child		
20. Tell the reasons for not following child's demands/wishes (consoling child for becoming calm and quiet)		
22. Tell childhood stories to the child, especially loving memories		
26. Recite rhymes/poems		

4. Show love to the child	Demonstrate positive feelings	**Sensitivity to the Child**
6. Give praise to the child	Praise to the child	
7. Adapt to the child	Adapt to the child	
35. Follow child's lead		
2. Going for the outing when child wants to go		
11. Play with child	Elaborate joint task	**Maternal Mediation**
13. Describe a shared event, e.g., cooking		
8. Help my child to be attentive	Focus child's attention	
14. Give meaning to the child's activity	Give meaning to the child	
9. Picture task of the training	Activities of the training	**Components of Intervention**
10. Video showing activities between mothers and children, i.e., playing with toys, cooking, playing with live chicken, combing		
12. Ice-breaking activities of the training (naming games, use opposite activity of the object, tell multiple activities of the object, identify qualities of self)		
19. Pair work: Drawing activity		
18. Like all activities of the training		
25. Group bonding of the training (different persons came closure and became friends)	Group cohesion of the training	
33. Attend the meetings with pleasure		
32. Facilitator makes us clearly understand all the topics	Facilitator's skill and behavior	
34. Facilitator's behavior and smiling gesture		

Table L5

Thematic Analysis of Parenting of the Child Changes as a Result of the Intervention

Responses	Sub-themes	Themes
27. Talk to the child (more)		**Talk to the child**
28. Console child (when the mother cannot satisfy child's demands)		
17. Tell stories/ rhymes		
31. Use media (television, mobile) for feeding to the child instead of using slap	Avoid Coercive punishment	**Positive Conception to the Child**
3. Do not scold and use physical punishment to the child		
14. Do not frighten the child		
16. Do not use negative word for addressing my son		
26. Give time to child	Positive perception about child	
24. Prioritise child's daily activities		
21. Give importance to child's potentiality		
23. Give importance to child's wishes/demands		
2. Talk nicely with the child		

4. Behave good with the child		
5. Show respect to the child while talking		
9. Show interest at child's daily activities like feeding, shower, playing, teaching religious activities (prayer)		
25. Help child to become self-independent (feeding, bathing, dressing up)	Child caring knowledge	
20. Understand the right and wrong for the child		
12. Do better take caring of child		
19. Know the techniques of calm down my child (showing love/playing with him/going for outing/involving child at household works)		
29. Play with the child	Elaborate joint task	**Maternal Mediation**
22. Give meaning to child's activity	Give meaning to the child	
1. Help child to understand his work		
8. Help child to accomplish his activities		
10. Show love to the child	Demonstrate positive feelings	**Sensitivity to the Child**
7. Follow child's lead	Adapt to the child	
11. Give child his desired objects according to the capacity		
30. More conscious and attentive to the child (immediately run to the child while crying)	Attend to the Child	
15. Understand child's mental conditions		
18. Keep my child with more safety (never leave him alone)		
13. Give praise to the child	Praise to the child	

Table L6

Responses	Sub-themes	Themes
1. Regular take care of the child (feeding, bathing)	Childcare knowledge	**Positive Conception**
2. Regular play with the child		
18. Go for outing when cannot fulfil his demands (showing stubbornness)		
19. Sometimes borrow toys from others if the child shows stubbornness		
28. Prioritise the child	Positive perception about child	
31. Give time to the child		
7. Give attention to the child		
20. Show respect		
17. Less use of scolding (avoid it mostly)	Less coercive parenting	
23. Less use of corporal punishment		
3. Help child to accomplish his activities	Give meaning to the child	

9. Explain a task to the child		**Maternal Mediation**
12. Make toys with home utensils	Elaborate joint task	
13. Explain and elaborate joint task to the child (cooking, dancing, singing, watching movies)		
4. Adapt to the child	Adapt to the child	**Sensitivity to the Child**
5. Keep away dangerous goods from the child		
24. Concentrate according to the child's preferences (follow child's lead)		
14. Show love to the child	Demonstrate positive feelings	
6. Praise to the child's activities	Praise to the child	
8. Educate good behavior (showing gesture of good bye, giving salaam, addressing nicely)	Regulate Child's Behavior	**Self-Regulation**
10. Help child to learn self-discipline (to do daily activities on own, set positive limits, rights and wrong)		
25. Careful about child's behavior and accompanying peers		
26. Teach new things		
27. Teach how to respect others		
29. Make child understand about his inappropriate behavior with peers/neighbours (self-discipline)		
30. Educate religion (salaam, salat, donation)		
11. Tell stories to the child (fairy tales)		**Talk to the Child**
15. Console child when cannot fulfil his demands		
16. Talk to the child		
22. Recite rhymes		

Thematic Analysis of Parenting Strategies that Applied with Children after Attending Intervention

Appendix M: Sample Qualitative Transcripts (Bangla and English translation)

Interview Transcripts on "Mothers' Conception to the child"

Pre-Interview Bangla Transcript: ID: 50

প্রঃ আপনি আপনার বাচ্চা সম্পর্কে কিছু বলেন? ও কেমন বলেন আপু?
উঃ ধইরা খাইতে পারে, ধইরা খাড়ায়, হাপুর পাড়ে, কিছু দিলে খায়, চঞ্চল করে একটু বেশি, কান্দে।
প্রঃ কেন কাঁদে?
উঃ যেটা চায় অইটা না দিলে কান্দে।যেমুন না দিবো ততক্ষন কানবো দিলে আর কানবো না।
প্রঃ ও মানে কি করলে আপনার খুশি লাগে?
উঃ খেললে খুশি লাগে, খাইলে খুশি লাগে।
প্রঃ ও কি কি পছন্দ করে খাইতে?
উঃ এই যে চিপস চুপস হাবিজাবি এডি খাইতে পছন্দ করে।
প্রঃ আর কি করে?
উঃ কাম করার সময় জ্বালায় অইসুমকা রাগ উঠে।
প্রঃ তখন কি করেন?
উঃ এই যে একটু মারি।
প্রঃ ও কি পছন্দ করে, মানে আপনার বাচ্চা কি কি পছন্দ করে? কি খেলনা গুলো পছন্দ করে?

উঃ এই যে পুতুল, বল, ঘোড়া, এডি দিলে পছন্দ করে।
প্রঃ আচ্ছা ওকে তো আপনি শিখান?বলা শেখান?
উঃ হ, আব্বু বলতে পারে, মা বলতে পারে।.....
প্রঃ ও কি ঘুরতে পছন্দ করে?
উঃ হ, ঘুড়তে পছন্দ করে, রাস্তায় নিয়ে গেলে ঠাণ্ডা হয়ে যায়।
প্রঃ কার সাথে খেলে ও?
উঃ এই যে ওর বাবার সাথে খেলে, মামাগর সাথে খেলে, হাসাহাসি করে।
প্রঃ আর আপনি ওর সাথে কিভাবে খেলেন?গল্প বলেন?
উঃ না, কি বলমু
প্রঃ এমনিতে ওর নাম ধরে ডাকলে ও সারা দেয়, নাম ধরে হৃদয় ধরে কেউ ডাকে?
উঃ হ্যাঁ, সারা দেয়।
প্রঃ তারপর আপনাকে কি ডাকে?
উঃ হ্যাঁ মা কয়া ডাকে। নাম ধরে ডাকে।
প্রঃ নাম ও বলতে পারে?
উঃ হ্যাঁ, নাম বলতে পারে লিজা।
প্রঃ আর কার নাম বলতে পারে ও?
উঃ আমার নামই ডাকতে পারে ও, নানি ডাকতে পারে। আমার নামই ডাকে ওর বাপরে আব্বা আব্বা ডাকে।
প্রঃ কোনটা ওর মনে হয় যে কেন কান্নাকাটি করছে?কি কারনে মনে হয় যে ও কান্না কাটি করে?
উঃ খেলার কারনে, ঘুমের লেইগা, ক্ষুধা লাগলে।
প্রঃ আপনার রাগ উঠে?
উঃ ওই যে কাম করি সময় কান্নাকাটি করে, জ্বালায় ওই সময়। তহন ধমক টমক দেই।
প্রঃ বিরক্ত লাগে আপনার?
উঃ বিরক্ত লাগে যেই সুমকা কাম করি না তহন মনে করেন কান্দে জ্বালায় ওই সময় একটু বিরক্ত লাগে। আর এমনি তহন বিরক্ত লাগে।
প্রঃ ও নিজে থেকে বিছনা থেকে একা একা নিচে নামতে পারে?
উঃ ধইরা একটু খাঁড়ায়
প্রঃ খাট থেকে নিচে একা নামতে পারে?
উঃ না।
প্রঃ এখন ওর যে বয়স এই অনুযায়ী ও যে দাঁড়ায় এতে আপনি খুশি?
উঃ হ্যাঁ।
প্রঃ ওকে হাটা শিখান?
উঃ হ্যাঁ ধইরা হাটা শিখাই।

Pre-Interview Translated in English: ID 50

Q: Tell me something about your child, what things can he do or can't do?
A: He stands up by grabbing something, he can crawl, can eat himself. He is a bit restless and crying.
Q: Why does he cry?
A: He has to be given what he demands. As long as he doesn't get what he wanted.
Q: Anything about him that makes you happy?
A: When he plays or eats, I feel happy.
Q: What does he like to eat?
A: Like chips, chocolate and all.
Q: What else does he like? Do you get mad at him?
A: When he disturbs me during working.
Q: What do you do then?
A: Sometimes I hit him.
Q: Is he like restless or calm? What do you think of him?
A: He plays quietly while playing but other times he behaves restless.
Q: What does he like? Does he like his toys?
A: He likes his dolls, ball, stuffed horse etc.
Q: Okay. I think you teach him different things right? Like do you teach him calling others?

A: He can call his father and also me.....
Q: Does he love to travel?
A: Yes. He likes to go out in the road.
Q: With whom does he play?
A: He plays happily with his father and uncle.
Q: How do you play with him? Do you tell him stories?
A: no, what to say?
Q: If anyone calls him by his name does he respond?
A: Yes. He does.
Q: Then can he call you addressing as his mother? Can he call?
A: Yes. he calls me as his mother, also calls me by my name.
Q: By your name? Does he know your name?
A: Yes, he knows that my name is Liza.
Q: whom else does he call by his name?
A: Only mine. He addresses my husband as his father. Sometimes also calls his grandma.
Q: When he cries, do you get why is he crying? For what reason he cries most?
A: For playing, for sleeping and playing.
Q: Do you ever get angry?
A: When he starts crying when I am working and irritates me.
Q: When he cries and irritates you?
A: No, I don't like it then. I have to scold him then.
Q: Do you get frustrated?
A: I feel irritated when he disturbs me during working.
Q: Do you know when he gets hungry or not?
A: Yes, he cries when he gets hungry and then I feed him.
Q: And does he create any more problems for you?
A: yes.
Q: Can he climb down the bed on his own?
A: Sometimes he stands by grabbing something.
Q: can he climb down from the bed?
A: No.
Q: He can stand up now at such an early age, does it make you happy?
A: yes.
Q: Do you teach him to walk?
A: Yes. I teach him to walk.

Post-Interview Bangla: ID 50

আমি- মা হিসেবে হৃদয়কে নিয়ে কিছু বলেন।

মা- কি বলব? গান ছেড়ে নাচে, খুশি হই। খেললে খুশি হই।

আমি- আর?

মা- আর কি?

আমি- বলেন, মা হিসেবে তো কত কথা বাচ্চা সম্পর্কে থাকে।

মা-রান্না, কাজ কর্মের সময় জ্বালায়।আর কিছুনা।বলি, বুঝাই।

আমি- আর কি মনে হয় যে হৃদয় যদি এই কাজটা করতে পারতো তাহলে আপনার ভালোলাগত?

মা-এরকম কাজ এখনো করতে পারেনা।

আমি- যেমন অসুখ হলে বলেন?

মা- অসুখ হলে তো খারাপ লাগবেই।ডাক্তারের কাছে নিয়ে যাই।স্যালাইন খাওয়াই।

আমি- আর?

মা- এই আপা। আর কিছুনা।

Post-Interviw: ID 50

Me- Say something about Hridoy as a mother.
Mother- What should I say? He plays songs and dance, I feel happy then. I feel happy when he plays.
Me- and?
Mother- What else?
Me- Tell us, there's a lot of things as a mother about child. What does Hridoy do or can't do that pains you?
Mother- He annoys me in time cooking and other works. Then, I talk to him and explain the situation.
Me- And do you think there's anything else he could do that would make you feel better?
Mother- He can't really do those kinds of things yet.
Me- What about when he's sick?
Mother- It's normal to feel bad when he's sick. We take him to the doctor. Feed him saline.
Me- What else?
Mother- that's it apa, nothing more.

Observational Transcripts (video) on Mother-Child Positive Interaction:

Pre-Observational Video Transcript: ID 21

……মা এবার একটি বই, খাতা ও কলম নিয়ে শিশুর সামনে বসলেন ।মা শিশুটির হাতের মুষ্টির ভেতর থেকে ডালগুলো তার হাতে নিলেন; শিশুটি তার হাতে থাকা দু-একটি ডালের দানা মুখে নেওয়ার চেষ্টা করছে। মা তাকে বারবার লিখতে বলছে এবং শিশুটি কান্না করে ঘুরে তার মায়ের কোলের উপর বসতে যাচ্ছে। মা খুব বিরক্ত হচ্ছে তার ওপর এবং তার সামনে ওষুধের তিনটি শিশি, একটি কিউট মুখের ক্রিম, নিভিয়া ক্রিম এবং মোবাইল সামনে রাখলেন। শিশুটিকে কোলে নিয়ে বসলেন এবং কেউ একজন রান্না করছে তিনি তাকে বলছেন ডালের চচ্চড়ি করে ফেলতে, একজন কেউ বলছেন আলু ভর্তা করার জন্য, শিশুটি তার মায়ের কোলের উপর চুপচাপ বসে আছে। মা অন্য কারো সাথে কথা বলছেন ।মা শিশুটিকে একটি থাপ্পর দিলেন পিঠে, শিশুটি মুখের ভেতরে ম্যাচের কাঠি ঢুকিয়ে ছিল তাই। মা শিশুটির কাছ থেকে কিছু চাইলে কিন্তু শিশুটি তা দিতে নারাজ। শেষে আবার ম্যাচের কাঠি শিশুটি মুখে দিলো। শিশুটি তার মাকে একটা থাপ্পর দিলো এবং কান্না করা শুরু করলো। মা সামনে একটি টেডি বিয়ার পুতুল রাখল, শিশুটি তবুও কাঁদছে তাকে অনেক কিছু বলে থামানোর চেষ্টা করছেন। কিউট মুখের ক্রিমের কৌটা তার সঙ্গে খুলে ধরল এবং বলল যে মুখে লাগানোর জন্য, সে আঙ্গুল দিয়ে একটু ক্রিম নিল এবং মা তাকে বলছে গালে দেওয়ার জন্য, গালে দিচ্ছে না সে আঙ্গুল দিয়ে তা নারছে।

Pre-Observational Video Transcript Translated: ID 21

.....Mother now kept a book, notebook, and pen in front of the child. Mother took lentils from the child's hand, and the child tried to put one or two lentil seeds to the mouth from her hand. The mother is asking her to write again and again and the baby is going to cry and wanted to sit on her mother's lap. The mother was very disturbed, and she took the medicine bottles in front of her along with the face cream Cute and Niviya and mobile phone. The mother took her child in her lap. Someone is cooking and she's telling that person to cook dal. Someone also told that, potato smash is good to cook. The child is laying silently on her mother's lap. The child took a match stick (use for lighting fire) inside her mouth and subsequently her mother slapped her for that. The child in return gave another soft slap to her mother and started crying. Her mother started attempts to please her. Then mother showed her that face cream, took some of that cream and told to apply into her face. However, the child did not use cream on face and touching with her fingers.

Post-Observational Video Transcript: ID 21

....মাঃ মা এইটা কুমিড় কামড় দিবে, ভাউ। তুমি প্যান ছাড়া আছো লজ্জা নাই (হাসি মুখে)
বাচ্চাঃ মায়ের জন্য কাঁদছিলা। মা যখন একটু সরে খাবার আনতে গেল।
মাঃ বাচ্চাকে শান্তনা, কান্না থামাতে ব্যাস্ত। বাচ্চাকে খাওয়াচ্ছে।
বাচ্চাঃ কান্না করছে ঘুমের জন্য, মাকে মারলো।
মাঃ " দেখে কেমনে মারে"। (একটু বিরক্ত নিয়ে।) আবার খেলতে লাগলো। মা মেউ কো? কামড় দিবো। কথা বলছে বাচ্চার সাথে এবং দুধ পান করাচ্ছে। "আমার মা নাচতে পারে, টিভি ছাইড়া দে তো রিমোট টা কই রে"। (হাত তালি দিয়ে খেলছে)।
বাচ্চাঃ মুখে খেলনা দিয়ে দাড়িয়ে আছে। মায়ের দিকে। চারদিক দেখছে।
মাঃ বাচ্চাকে চুমু দিয়ে, মা খেলো। আপা কি দিছে কি দিলো দেখো তো। (পুতুল হাতে দেখাচ্ছে বাচ্চাকে।)

Post-Observational Video Translated Transcript: ID 21

....Mother: This is crocodile which will bite you, Ammu, Vau (fear sound). You are without pants, don't you have shame? (Saying with smiling face)
Child: Mother went to take child's food; absence of her the child was crying.
Mother: Tring to console her daughter and explain also. Feeding her child.
Child: crying continuously as she was feeling sleepy, slapping mother a bit.
Mother: "look, how she hits me" (mother was feeling irritated and disturbed). She started to play with child. Where is the cat, Ammu? It will bite you. Mother was talking to the child and simultaneously doing breast fed. "My child can dance, please turn on the TV, where ids the TV remote?" (Mother was clapping hands)
Child: Now the child involved with mother, put the toys on mouth and looking at her and surroundings.
Mother: inspired child to play with toys that the data collector brought there as play materials (indicating doll on her hand).

Appendix N: A Glance of Intervention Pictorial Materials

These pictorial materials were prepared as a part of intervention content and module development that were used in the main study sessions.

Appendix O: Photographs of Intervention Sessions and Disadvantaged Study Area

All photographs were taken only for this research purposes. Mothers were given their oral permission for using these photos on the thesis document.

Photograph 1

One Session's Moment of Intervention Group Mothers with Facilitator

Photograph 2

Receivng Toy Materials at the End of Intervention Session No. 3 for WLC Group Mother

Photograph 3

Intervention Group Mothers Received ICDP Picture Card and Educational Material for their Children at the Last Session

Photograph 4

Mother-Child Dwelling Condition at Study Area