

Chapter 14

EVALUATING MOCEP'S PILOT PROGRAM IN LEBANON IN PALESTINIAN CAMPS

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ABSTRACT

This study purports to evaluate the piloting of the Mother Child Educational Program (MOCEP) sponsored by Arab Resource Collective (ARC) in Lebanon to measure the effectiveness of this home-based early intervention program on both mothers and their children, with respect to its proposed goals and objectives. Eighty-eight Palestinian mothers from six organizations/camps for Palestinian refugees participated in the study. The second and third phases of the program, training of mothers by trainers and program implementation on children, were assessed. The program's effectiveness was measured by way of two questionnaires completed by the mothers, one assessing children's performance and the other examining mothers' performance. Questionnaires were filled out in two stages: pre- and post- participation in the program. Results showed significant improvement in children's performance, the mother-child relationship, and enhancement of the home environment in a way that makes it more conducive to child development. This study has important implications for addressing the needs of Palestinian children through MOCEP. It also highlights the obstacles that impede its proper implementation.

Keywords: MOCEP, Palestinian, early intervention, home-based, Lebanon, mother and child, social policy, Arab Resource Collective.

1. INTRODUCTION

The Mother Child Education Program (MOCEP) is a home-based education program that draws on three decades of research and is developed for children between 5 and 6 years of age who have not had access to pre-school education services, and also targets their mothers, rendering the program a model for both adult and child education (Beckman, 1998). MOCEP aims to enrich children cognitively in order to boost school readiness and optimal psychosocial development, and to create an environment in which children will be better nourished and healthier. In addition, mothers' knowledge and role in their children's development is augmented, thus enabling mothers to feel emotionally secure, grow more self-confident, and learn about family planning and reproductive health (Bekman, 1998; Koçak & Bekman, 2004).

MOCEP gave rise to the Mother Child Education Foundation (Anne Çocuk Eğitim Vakfı [AÇEV], 2013), a Turkish Non-Governmental Organization (NGO) that has developed programs for parents and children based on wide scale scientific research. Having revised and improved the program over a period of twenty years based on constant evaluation, AÇEV has also transferred knowledge to several countries in Europe and the Arab world with comparably successful results. A sequence of research studies conducted from Bahrain to Belgium (Koçak & Bekman, 2004; Bekman & Koçak, 2011) have assessed both the short and long term impact of the program, with results affirming that:

- The children of participating mothers achieved higher scores in intelligence and general aptitude tests; were more successful academically; continued their schooling for a longer period of time; and developed a more positive self-concept (Hadeed, 2005).

- The participating mothers communicated better with their children and husbands; experienced increased self-confidence regarding their parenting skills; and enriched their children's living environment based on what they learned (Koçak & Bekman, 2004).

- The program has positive effects not only for children, but their mothers as well.

Appraisal of MOCEP has shown that the social and cognitive development of pre-school aged children brought up in developmentally 'at risk' environments can be augmented through promoting positive changes in parenting skills and enriching their immediate home environment. As a home based program, it does not require the infrastructural investments of centre-based preschool education and can be established in communities of the families at a low cost.

2. BACKGROUND

MOCEP consists of three components: Mother Support Program, Cognitive Training Program and Reproductive Health and Family Planning. Each component includes educational materials which are distributed to the mother and child free of charge. The program is administered over 25 weeks and takes the form of weekly three hour group meetings facilitated by trained group leaders. A home education kit is provided to mothers every week to be implemented at home with her child. The program is supplemented by regular home visits made by group leaders to support mothers in the home environment (Bekman, 1998).

The Mother Support Program component is delivered in the form of group discussions guided by a trained group leader. The aim is to sensitize mothers on subjects such as children's development, health, nutrition, care and creative play activities, discipline, mother-child interaction, communication, expressing feelings and the needs of the mother. Through sensitization to these issues, the mother is better able to support the development of her child (Bekman & Koçak, 2011).

The Cognitive Training Program component is based on 25 worksheets and 8 storybooks that aim to foster the cognitive development of the child and prepare him/her for school. Each week's materials contain various exercises to be carried out by the mother with the child each day at home. These exercises contain activities that foster eye-hand coordination, verbal development, pre-literacy and pre-numeracy skills, and problem solving skills among other cognitive abilities. This part of the program is further supported by home visits conducted by teachers (Bekman, 2004).

The Reproductive Health and Family Planning component also takes place in the form of group discussions and aims to sensitize mothers on the female reproductive system, healthy and risky pregnancies, contraceptive methods and general reproductive health. This program includes 23 topics divided into two parts: the first part consists of 14 topics covering the importance of reproductive health, and the second tackles various strategies of family planning (Bekman, 1998).

3. LITERATURE REVIEW

Over the past decade, an emerging trend has looked upon literacy as more than a mere technical skill set, and more as social practice that is essential to community cohesion and national economic development (National Adult Literacy Agency [NALA], 2011). As such,

the social inclusion of rural communities and underprivileged neighbourhoods is dependent on programs and policies that not only educate the public technically, but raise awareness about correct parenting by way of behavioral and cognitive adjustment. Critical to the increasing enthusiasm for educational programs has been the growing consensus that intervention at the earliest stages of child development is essential to long term achievement (Kagiticbasi, Sunar, Bekman, Baydar, & Cemalcilar, 2009). Evans (2001) contends that by the age of eight, it is too late to radically alter the cognitive function needed for future achievement. By not providing an alternative to costly pre-schooling for those under the age of 8, subsequent attempts to intervene at a later age fail to be cost-effective; with economic sense and returns being key motivators for the adoption of public education policies.

Industrialized nations with low rates of poverty such as Luxembourg, Norway and Finland attribute their economic record to an abundance of successful social policies (Hadeed, 2004). Part and parcel of said policies, social programs aimed at mothers and children under the age of six have long been mainstay of these nations (Ball, 1994). The relevance of attending to these two demographics is that women and children represent the largest relative group of people entering poverty at the global stage; a trend that is mirrored across the Arab world (Hadeed, 2004; El-Ghonemy, 1998). Hadeed & Sylva (1999) found that the most significant facet of social inequality in the Arab countries like Bahrain is represented by the low enrollment of 3-6 year olds in preschools. Despite aggressive campaigns to increase employment opportunities, the social programs that exist in industrialized nations like Norway are simply non-existent and education at the most critical stage of a child's development is largely ignored. A policy of focusing on occupational opportunities is less effective when it does not take into account early childhood development. Pre-school education in Arab countries is not compulsory. Enrollment of children in kindergarten is far from uniform across the Arab world, whereby it does not exceed a rate of 1% in some countries, in contrast to a rate of 70% in others. Even in countries with a higher rate of enrollment, figures do not ensure that children receive a quality education. Poor quality and low enrollment rates in pre-schools have an effect on school dropouts, an increase of the number of children working and/or living in the street, as well as negatively affecting countries development and economic growth.

According to a WHO report (Irwin, Siddiqi, & Hertzman, 2007), economists have become more aware of evidence that argues for early child investment as a first priority. The report indicates that, while most parents would want their children to have the most nurturing environment for their social, physical, and emotional development, most are either unable or unaware of how to do so. To lower the morbidity rate of children by way of health policies is insufficient if the same children are not provided for academically or by way of a nurturing home environment. Irwin et al. (2007) highlight the existence of enriched environments and "quality of stimulation" in the home from the time of conception to the age of 8 as the key determinant for future achievement as an adult (p. 41).

From a moral standpoint, the necessity for creating home-based interventions like MOCEP is explicitly contained within the provisions of the UN's "Convention on the Rights of the Child" (Evans, 2001, p.93). The aforementioned stipulates that parents are primarily responsible for the education and development of their children; while the responsibility of establishing policies that enable parents to do just that rests at the feet of the government. While NGOs may, at the best of times, be the champions of policy, their innovative programs must be appropriated by government agencies in order to ensure their long term sustenance and nation-wide coverage. The World Bank specifies that, in order for social programs to be successful, dissemination of policies to local governments within a

country is necessary (Ridao-Cano & Aran, 2011). By way of example, Sweden provides a standard for early child development, whereby a comprehensive education at a young age is augmented by financial family benefits and support services. By adopting a “decentralized approach to governance”, more attention is given to the micro; whereby local authorities are responsible for catering to the contextual needs of a specific community (Ridao-Cano & Aran, 2011, p. 23).

While center-based programs are capable of providing services that take into account local community requirements, there exists a school of thinking that an even more engaging micro approach is more suited for purpose. Home-based programs like MOCEP follow a trend of recognition regarding the importance of psychological development context. Kagitcibasi (1997a) refers to the proximal environment in the home setting as a vital context for establishing “interactive mediation” between parents and children (p. 22). Center-based social programs such as community counseling centers are not as effective in understanding the specific needs of a family without observing – and mediating – their interactions within the home environment. For children at the earliest stage of development, the importance of a proper environment in the home is more important than the external environment such as pre-school or centers of education. The mother as the principal caregiver in a Turkish – or indeed Arab – household, should thus be a target of a “contextual/systematic approach involving a mediational model” according to Kagitcibasi (1997a, p. 25). MOCEP both recognizes and satisfies this approach to training and cognitive education. In intervening on the education of children between the ages of 4 and 6 by way of engaging mothers as primary caregivers, there is an underlying presumption that children are unable to do many things by themselves. This necessitates the involvement and mediation of their parent, typically the mother, in order to provide a “zone of proximal development” (Bekman, 2004, p. 18). It follows that the better prepared or trained mothers are in fostering a productive environment, the more school-ready they will be. A key aspect of MOCEP's model is the dual intervention on mothers and children.

Kagitcibasi et al. (2009) points to studies that show twice as much improvement in children's cognitive function when intervention focused on mother and child in tandem. In a recent study by Bekman & Koçak (2011), the authors found that the key determinant for MOCEP's success was the predisposition of mothers to change their behavior for the sake of their children. By way of interviewing 100 mothers in five countries where MOCEP was implemented – comprising Turkey, Belgium, Switzerland, Bahrain and Saudi Arabia – Bekman & Koçak determined that participating mothers were not convinced to do so by administrators. Even in the face of occasional opposition from their spouses and neighbors, mothers were resolute in their stance to accept training. This finding suggests that key changes in the cognitive capabilities of the participating children would not have been as positive without the inclusion of the mother enrichment component. Corroborating testament is found in the work of Britner and Reppucci (1997), whereby the authors found evidence for the interdependency of maltreatment, poor educational attainment, and multiple pregnancies as risk factors. The convergence of the three is especially visible in poor communities where social interventions are most needed and effective. While MOCEP tackles all three interdependent risk factors with its three components, Bekman and Koçak's highlighting of the mother as keystone is supported by literature on mother-centered interventions.

By finding synergic benefits between its three components, AÇEV's development of MOCEP has taken into account the context of home interaction while refining its project to suit the population of rural Turkey. Prior to its development into a public program in 1991, MOCEP drew its inspiration from a 4-year research project carried out in 1982 designed to

assess the merits of home-based intervention (AÇEV.org). According to AÇEV, both the Mother Enrichment and Cognitive Enhancement components were appropriated from a project by the Hebrew University in Jerusalem, titled HIPPIY – or Home Instruction Program for Preschool Youngsters. After a four year testing period, whereby the local project was titled the ‘Turkish Early Enrichment Project’, a longitudinal study gave way to the refinement of the current MOCEP project (Bekman, 1998). Initially a year-long public intervention, MOCEP’s duration was shortened to 25 weeks and appended a third component whereby family planning services would be provided to the study group. Such was the multi-faceted success of the program that, by 2002, Turkey’s Ministry of National Education adopted the project itself. Two decades after the project was conceived in its current form, European agencies such as the National Adult Literacy Agency in Ireland revere NGOs like AÇEV as “policy champions” (NALA, 2011, p.68). To date, the program has served 200,000 women and children in Turkey alone; a country where only 21% of children between the ages of 4 and 6 are fortunate enough to attend institutional pre-schooling (AÇEV.org). For its success in affecting the lives of so many in Turkey and ability to affect policy at the national level, MOCEP was declared a winner at the 2010 World Summit for Education itself an initiative of the socially conscious Qatar Foundation (Jere, 2011; World Innovation Summit for Education [WISE], 2012). As of 2012, MOCEP’s model has been reproduced in 13 countries, affecting the lives of some 700,000 children and mothers in the process, with the latter being trained to be first educators (WISE, 2012, p. 7).

The successful record of MOCEP’s dual intervention in the home environment has proven to be transferrable to the nearby Middle East region, where low enrollment rates in pre-school and lack of social policies for mother and child across the region generate a need for involvement. The Kingdom of Bahrain, a rich country with disparaging inequality between social classes, was an early adopter of the program in 2001, where it was first initiated under the patronage of the Bahrain Society for Child Development. By way of heeding the contextual, and due to cultural sensitivities, the family planning component was omitted from the program’s implementation; with the focus resting on mother support and cognitive training for the children. The project intervened on 92 financially disadvantaged families, with 75 households serving as a control group. Following analysis of pre and post-test results, the administrators confirmed wide ranging benefits with the most significant gains affecting children’s cognitive abilities and self-esteem, while positive results were also found when assessing parental behavior in the home environment (Hadeed, 2004). Unlike AÇEV’s experience in Turkey however, the positive assessment of the Bahrain project did not result in the local government adopting its administration and increasing program coverage, with the reins handed over to the Bahrain Red Crescent Society instead.

It is believed that this program can play an important role in Arab countries in combating traditional gender roles, improving intra family relations and contributing to conflict resolution within the family in addition to its primary aim of improving child life. With an eye on improving both the literacy of participants and their quality of life, a pilot study was conducted in Lebanon as part of a first cycle, by way of cooperation between AÇEV and the regional NGO Arab Resource Collective (ARC) (www.mawared.org).

4. THE PILOT PROGRAM IN LEBANON

The modular program was implemented by teachers, guidance counsellors and social workers, with the aim to impart mothers with the skills necessary to fully support their child's development. Implementation of the program took place in three main phases: 1) training of trainers with the help of AÇEV and ARC experts, 2) training of mothers by trainers and, 3) program implementation on children.

ARC, in cooperation with its partners, recruited mothers of pre-school aged children from target communities to participate every week in a designated social/community center in discussion groups led by the trainer. Trainers also conducted home visits to mothers to support them in the context of the proximal environment. The communities trainers targeted were six organizations/camps for Palestinian refugees – the population of which make up the least privileged quintile in the country – whereby the designated sites were: Ahlona/Sidon Camp; Sabra camp; Woman Programme Association (WPA)/Bourj Barajneh Camp; Inaash, Bourj Barajneh Camp; GKCF (Ghassan Kanafani Cultural Foundation), and Mar Elias Camp (Zeina) (Popular Association for Relief and Development).

4.1. Evaluating the Pilot Program: Objectives and Study Sample

Following the conclusion of the 25-week program in 2011, an evaluation of the second phase was conducted by investigators. An evaluation of the complete program would require an extension of the pilot and long-term assessment in order to produce comparable findings to MOCEP's prior implementations. In the meantime, the main objective of the presented study is to measure the effectiveness of program on both mothers and their children, in addition to assessing where the program's progress stands in terms of meeting its expected targets.

The study sample consists of 88 Palestinian mothers who had participated in the program. A breakdown of the demographic data is presented in Table 1. Key descriptive frequencies are identifiable as follows: Mothers aged between 26 and 30 years accounted for the majority of the sample, with a figure of 28.4%. Making up 23.8% of the sample were mothers aged 36-40, with the average age of the entire sample standing at 32.3 years. Only 5.6% of mothers were found to have attained a college diploma, with 35.2% having only finished elementary school. 10% of those surveyed were either illiterate or had failed to attain elementary education. Critically, 71.5% of the mothers were unemployed.

While mothers with 2 children made up the largest group, accounting for 36.3% of the sample, the average number of children per mother was 3. 85% of the participants' children were beneath the age of 6, representing the necessary criterion for MOCEP's administration of cognitive training at the early stages of development. Almost two thirds of the children were male.

Table 1. Demographic information of participants.

	Category	Frequency
Age of Mothers	20 - 25	16
	26 - 30	25
	31 - 35	14
	36 - 40	21
	41 - 45	9
	46 - 50	1
	N/A	2
Educational Levels of Mothers	Can write and read	7
	Didn't finish elementary school	2
	Finished elementary school	31
	Didn't finish middle school	12
	Finished middle school	2
	Didn't finish high school	12
	Finished high school	14
	Didn't finish college	3
	Finished college	5
Employment Status	Employee - Full Time	2
	Employee - Part Time	5
	Self-Employed	4
	Not employed	63
	Employee - Seasonal	1
	N/A	13
	No. of Children	1 Child
2 Children		32
3 Children		19
4 Children		14
5 Children		5
6 Children		4
7 Children		3
N/A		4

4.2. Methods

Two questionnaires were filled: one for children's performance [consisting of 16 statements, representing behavior variables] and one for mothers' performance [18 statements representing other behavior variables], both completed by the mothers. Questionnaires were filled out in two stages: pre- and post- participation in the program. A 5-point scale was utilized for participants' responses.

Questionnaire scores were entered into SPSS statistical software for analysis and interpretation. For data analysis, each part was divided into descriptive and analytical statistics to compare means and scores obtained as a first step, followed by a regression analysis to affirm that improving results were due to participation in the project, accordingly demonstrating the effectiveness of the program.

4.3. Results

4.3.1. Descriptive Statistics. The aim of the descriptive analysis was simple mean comparison between obtained scores of the variables to determine which variable(s) achieved the highest agreement scores. With respect to results of the program on children of respondents who participated in the pilot, mothers identified positive factors in their children's intellectual abilities, including conversations skills, use of words, interest in learning and ability to recall events. With high agreement scores [4 to 5] to positive attributes and low agreement [1 to 2] to negative statements, mothers displayed an

expectedly positive perception of their children, highlighting the extent to which program has to achieve an improvement in children's behavior. The program results on children are shown in Table 2.

Table 2. Program results on children.

Descriptive Statistics	N	Mean	Std. Deviation
Child easily tells an experienced event	83	4.42	0.80
Child can tell a TV program that he watched	84	4.26	0.91
Child says which TV programs he wants to watch	83	4.12	1.05
Child can easily talk to people when visiting friends / family	84	4.10	1.15
Child wonders what the books are about	84	4.04	1.02
Child can tell what others told him completely	85	4.02	0.95
Child uses his own words while talking	83	4.00	1.13
Child can tell what he did to anyone when visiting a place	85	3.68	1.17
Child tries to read by himself	82	3.20	1.53
Child is only interested in pictures in the books	84	3.13	1.49
Child makes effort to write his name	83	2.98	1.56
Child gets bored easily while being taught new things	84	2.82	1.34
Child seems not interested in Newspapers and Magazines	85	2.64	1.22
Child doesn't wonder the events in a story	84	2.30	1.40
Child struggles to tell reasons of his crying	84	2.21	1.40
Child has hard time to tell when he's hungry	84	2.08	1.46

In the questionnaire on mothers' own performance, mothers emphasized a perceived healthy relationship with their children while expressing a willingness to improve in terms of behavior and interaction; both key to the healthy long-term development of children. A descriptive aggregation of both child and mother behavior found that mothers play an active role in their child's guidance while also being aware of their children's behaviors, needs and problems, and act accordingly by using reward, punishment, and supportive behaviors. The program results on mothers are shown in Table 3.

Table 3. Program results on mothers.

Descriptive Statistics	N	Mean	Std. Deviation
Say "Bravo" for if child did something they asked for	81	4.74	0.44
Listen to problems of child	85	4.56	0.64
Remind child to behave good over and over again	85	4.31	0.87
Let the child do something he likes and fun	85	4.31	0.76
Hug / Kiss child without reason	83	4.27	0.93
Realize spontaneously if child does something good	85	4.22	0.64
Intimidate child with punishment if he doesn't listen	83	4.04	0.93
Play with child	85	4.04	0.89
Mother Scold / yell at child when misbehaving	84	3.99	0.88
Used to tell stories and read to child	85	3.91	1.01
Take the child where he wants to go	84	3.81	0.88
Express anger when give punishment to the child	85	3.62	1.09
Scold child if he fights with other children	83	3.51	1.10
Say bad things unintentionally when get angry at child	85	2.95	1.27
Beat / smack child if he does not listen	85	2.91	1.29
Used to say "I don't like you" to child when he does not listen	85	2.60	1.28
Pull child's ears if he misbehaves	85	1.98	1.13
Hurth the child if he hurts another child	85	1.87	1.07

4.3.2. Analytical Statistics. To measure the dependency relationship between the children skills and participating mothers' skills, all children-related variables used in the questionnaires [Tables 2 and 3] were grouped into the 5 following categories:

- 1 - Cognitive awareness
- 2 - Cognitive thinking
- 3 - Knowledge interest
- 4 - Recall ability
- 5 - Social skills

The purpose of the categorization was to establish a relationship of dependencies between the variables. Firstly, the dependency between mothers' behaviors prior to program participation was measured, followed by finding the dependency level of their children regarding each aspect above. In order to represent their respective category for the purpose of regression analysis, one key variable in each group – having the highest score – was chosen as a sample [Highlighted in blue in Table 4]. The resulting 5 dependent variables were then related to the 18 independent variables; representing the improved maternal behaviors listed in Table 3.

Table 4. Key representative variables for dependence/regression analysis.

Aspect measured	Variable	N	Mean	Std. Deviation
Cognitive Awareness	Child says which TV programs he wants to watch	83	4.42	0.80
	Child uses his own words while talking	83	4.00	1.13
	Child struggles to tell reasons of his crying	84	2.21	1.40
	Child has hard time to tell when he's hungry	84	2.08	1.46
Cognitive Thinking	Child wonders what the books are about	84	4.04	1.02
	Child makes effort to write his name	83	2.98	1.56
	Child gets bored easily while being taught new things	84	2.82	1.34
	Child seems not interested in Newspapers and Magazines	85	2.64	1.22
	Child doesn't wonder the events in a story	84	2.30	1.40
Knowledge Interest	Child tries to read by himself	82	3.20	1.53
	Child is only interested in pictures in the books	84	3.13	1.49
Recall Ability	Child easily tells an experienced event	84	4.26	0.91
	Child can tell a TV program that he watched	83	4.12	1.05
	Child can tell what others told him completely	85	4.02	0.95
	Child can tell what he did to anyone when visiting a place	85	3.68	1.17
Social Skills	Child can easily talk to people when visiting friends / family	84	4.10	1.15

In the first instance, relating dependence of children's cognitive awareness on their mothers' behavior, a result of $R = 56.35\%$, found that there is a relatively positive relation and relationship between cognitive decisions and aggregated maternal behaviors. As for the coefficient of determination [R^2], a measure of overall significance, analysis obtained $R^2 = 31.76\%$, meaning that 31.76% of the variance in [Child's "ability to say what program he wants to watch"] is explained by the variance in all independent variables taken together. An 18.6% probability [ANOVA significance of 0.186] that chance affected the dependent variable was also established, signifying a positive significance of regression. The conclusion is thus that a child's cognitive awareness is relatively dependent on the mother's behavior.

A similar analysis of children's cognitive thinking found a dependence on mother's behavior, with $R = 66.96\%$ proposing a strong positive relation. The coefficient of determination yielded a result of $R^2 = 44.83\%$. An ANOVA significance of 0.006 affirmed a very high significance of regression with a percentage of less than 1% left to chance. The conclusion is thus that a child's cognitive thinking is highly dependent on the actions of the mother at the stage of early development.

Relatively positive relation was confirmed with the regression analysis of children's knowledge interest. A considerable coefficient of correlation [R] with a result of $R = 55.23\%$ demonstrated the dependency. A coefficient of determination obtained a result of $R^2 = 30.5\%$, with a 24.7% probability of chance being responsible for variation in the dependent variable. The conclusion is that interest in gaining knowledge is dependent on the improvement in mothers' skills and behaviors.

Measuring the dependency of children's recall ability on maternal behavior, $R = 61.97\%$, signifying a considerably strong correlation and relationship between variables. Coefficient of determination yielded a figure of $R^2 = 38.41\%$, indicating the relation of variance. An ANOVA significance of 0.045 demonstrated that there was less than 5% probability of chance dictating the outcome of regression. A child's recall ability is therefore highly dependent on the improvement in mother's skills and behaviors.

Finally, regression measuring the dependency of a child's social skills on maternal behavior yielded a coefficient of correlation where $R = 45.87\%$, and a coefficient of determination where $R^2 = 21.04\%$. Critically, an ANOVA significance of 0.708 suggests a very high 70.8% probability that chance would affect the development of social skills. These findings suggest that, while improvement in maternal behavior can affect their children's social skills, external factors such as paternal influence or a community's environment could shape the development of this skill category.

4.4. Post-Scores Analysis

4.4.1. Simple Mean Comparison. After obtaining post-scores and entering them into SPSS, means were obtained and compared to pre-score means. Scores' variables were arranged according to positive statements, whereby mothers were found to be in higher agreement, and followed by negative statements where mothers were expected to disagree. When comparing pre-scores and post-scores, Oweini recorded an improvement in children performance as well as mothers' behaviors and relationship with their children. There was an improvement in scores with respect to positive statements, with an average increase of 8%. Conversely, there was an average decrease of 14% with respect to negative statements, indicating that mothers were less likely to engage in negative behaviors, with the most dramatic change being a decrease in the use of intimidating/abusive behavior by mothers. Both results suggested an improvement in the mother-child relationship and the enhancement of a home environment conducive to child development. Detailed comparison of pre- and post- scores for children's behavior and mothers' behavior is shown in Tables 5 and 6 respectively.

Table 5. Comparison of pre- and post-scores: children behavior.

Descriptive Statistics	N	Mean	
		PRE	POST
Child uses his own words while talking	83	4.00	4.42
Child can easily talk to people when visiting friends / family	84	4.10	4.42
Child says which TV programs he wants to watch	83	4.42	4.38
Child can tell a TV program that he watched	84	4.26	4.33
Child easily tells an experienced event	83	4.12	4.29
Child wonders what the books are about	84	4.04	4.26
Child can tell what others told him completely	85	4.02	4.25
Child can tell what he did to anyone when visiting a place	85	3.68	4.07
Child tries to read by himself	82	3.20	3.14
Child seems not interested in Newspapers and Magazines	85	2.64	2.57
Child gets bored easily while being taught new things	84	2.82	2.49
Child struggles to tell reasons of his crying	84	2.21	2.32
Child is only interested in pictures in the books	84	3.13	2.17
Child doesn't wonder the events in a story	84	2.30	2.14
Child has hard time to tell when he's hungry	84	2.08	1.91
Child makes effort to write his name	83	2.98	1.83

Table 6. Comparison of pre- and post-scores: mother behavior.

Descriptive Statistics	N	Mean	
		PRE	POST
Let the child do something he likes and fun	85	4.31	4.47
Say "Bravo" for if child did something they asked for	81	4.74	4.42
Listen to problems of child	85	4.56	4.40
Used to tell stories and read to child	85	3.91	4.34
Hug / Kiss child without reason	83	4.27	4.24
Play with child	85	4.04	4.23
Realize spontaneously if child does something good	85	4.22	4.00
Remind child to behave good over and over again	85	4.31	3.97
Take the child where he wants to go	84	3.81	3.73
Express anger when give punishment to the child	85	3.62	3.63
Scold child if he fights with other children	83	3.51	3.14
Intimidate child with punishment if he doesn't listen	83	4.04	2.90
Mother Scold / yell at child when misbehaving	84	3.99	2.68
Used to say "I don't like you" to child when he does not listen	85	2.60	2.24
Say bad things unintentionally when get angry at child	85	2.95	2.11
Hurth the child if he hurts another child	85	1.87	2.00
Beat / smack child if he does not listen	85	2.91	2.00
Pull child's ears if he misbehaves	85	1.98	1.95

4.4.2. Mean Regression Analysis

The aim of this analysis was to understand the dependency relationship between the improvement in scores and the participation of mothers in the program. However, as negative and positive statements were clumped together in the questionnaires, the contradiction in numerical mean scores would nullify the sums, and a whole regression cannot be used. Therefore this factor was removed by applying the regression analysis on each statement type apart; i.e. one regression for pre and post positive statements, and

another regression for pre and post negative statements [Designated as black for positive and red for negative in Tables 5 & 6].

With respect to positive statements, a coefficient of correlation yielded a result of $R = 69.1\%$, a coefficient of determination $R^2 = 47.8\%$, and an ANOVA significance of 0.008. All in all, a highly significant correlation and very low probability of chance [less than 1%] indicated a strong dependency of children's behaviors on aggregated positive maternal behavior scores affected by the MOCEP pilot.

With respect to negative statements, a coefficient of correlation yielded a result of $R = 60.3\%$, a coefficient of determination $R^2 = 36.3\%$, and an ANOVA significance of 0.084 [8.4% probability]. A significant correlation and low probability of chance [8.4%] indicated a similarly strong dependency of children's behaviors on aggregated maternal negative behavior scores affected by the MOCEP pilot.

4.5. Additional Insights: Post-Scores Feedback

While the mean scores of the variables on both questionnaires indicated that mothers learned helpful concepts to identify and rectify their children's development issues, supplementary insights were provided by way of maternal feedback following completion of the program. For instance, 77.2% mothers claimed that open discussion of topics proved most beneficial to them, with family planning covered in MOCEP's third component coming in second at 19.3%. Only 3.3% indicated that the cognitive training component was the most beneficial part of the program. Respondents indicated that they were very satisfied with the implementation of the program on the whole, and perceived a fulfilment of their needs. Mothers were equally enthusiastic about the helpfulness of the program in improving their child's development, with a mean score of 4.92 indicating strong agreement. An identical mean score was recorded with respect to mothers strongly agreeing that the program helped them understand their children better. When asked about the contribution of home visits in the implementation of the program, a mean score of 4.34 was recorded. Significantly, when asked to compare the first two components of the MOCEP project, 58.6% found that the Mother Service Program (MSP) was the most important component, with the remaining 41.4% finding the most benefit in the Cognitive Training Program (CTP) component. This bias may be explained by the relative ease and applicability of the MSP when compared to the CTP, which may be a more complicated process requiring more time for mothers to fully understand it.

4.6. Discussion: Success of Pilot Implementation in Context

The pilot implantation of MOCEP in Lebanon was expected to yield a number of benefits for mother, child and community similar to positive results of long term studies in countries like Turkey and Bahrain (Bekman, 1998; Kagitcibasi, 1997b). Overall, evaluation of the pilot demonstrated a positive impact on mothers and children in Palestinian refugee camps where poverty levels are at their highest, and opportunities for pre-school or employment are at their most dire in the country. ARC, in cooperation with its partners, indicated specific objectives for program, as listed below:

- Provide parent training to support their roles as their children's first educators
- Empower mothers with the skills needed to promote their children physical, emotional, cognitive and social development.
- Prepare children for school, and support their development
- Empower the mother with skills and attitudes which will impact both her and her children's wellbeing for years to come.

The purpose of this study was to evaluate the 2nd step in the modular program, previously defined as the training of mothers phase across all three components of MOCEP. Findings confirm the overall transferability of the program to Lebanon as well as affirming the positive impact of attention to context within the refugee camps, an encouraging assessment for extending the pilot program.

Feedback from mothers indicated that the inclusion of the third component, Family Planning, was welcome with 19.3% of respondents citing it as the most beneficial part of the program. This is in stark contrast with the Bahraini experience, where the component was omitted altogether as part of the appropriation (Hadeed, 2004). The results of the evaluation also affirm the findings of Bekman & Koçak (2011) presented in the literature review, whereby the success of MOCEP implementation is significantly attributed to the willingness of mothers to accept intervention and improve across all three components of the program. With respect to long terms assessment of benefits, there remains an arguable point of contention that speaks to the lowly future prospects of those living in refugee camps. Unlike the experience in Bahrain or Turkey, Lebanon lacks in socio-economic policies that would supplement MOCEP. Kagitcibasi et al. (2009) found that even the most effective interventions at the earliest stage of development have “limited applicability for low income groups” (p. 777). This is attributed to less opportunities being available down the line for the poorest demographic, especially with regards to affording higher education that capitalizes on the increased cognitive function within the intervened group. Effectively, if improved school readiness does not translate into schooling or occupational opportunities, the benefits are somewhat negated. That being said, Kagitcibasi et al. (2009) maintain that benefit-cost ratios for both center-based interventions and home-based ones like MOCEP yield social and economic returns. Home-based interventions, in particular, produce high returns due to their implementation being less expensive than those dependent on training facilities and community centers. While programs similar to MOCEP’s structure are clearly not a solution to socio-economic equalities, the efficiency of early intervention with respect to individuals, communities, and national growth makes for a compelling proposition. As such, education programs should not only be recognized as imperative within Lebanon, but adopted by the Ministry of Education with a view towards funding and extension.

Contextual/local challenges aside, and in looking back at the initial objectives of the program, the following can be noted:

- The program was highly positive regarding addressing the needs of Palestinian refugees. Children’s cognitive skills were improved through training mothers on how to understand their children and behave accordingly. Mothers grew more aware of their children’s needs, and became more apt at responding properly, and foster healthier communication.

- As for reaching out to the target audience, the program has been successful to a great extent, as mothers were satisfied with the content and implementation of the program, the trainers’ participation, topics covered and results achieved.

- Concerning beneficiaries’ satisfaction, scores obtained in the “additional insights” section proved how mothers were satisfied with the program, as they expressed their interest in have fathers participate in the program.

As such, the pilot program is right on target and in line with its objectives, and yielded similarly significant results to AÇEV’s findings on similar programs in other countries.

5. FUTURE RESEARCH DIRECTIONS

5.1. Limitations of this Study

Several limitations exist since implementation of the program depends not only on the program itself, but on the trainers as well. The extent to which trainers understood it, were able to deliver it to the mothers, and in turn to what extent mothers were able to apply it effectively and efficiently all affect the success rate.

The areas that could not be directly measured in this study include:

- Trainers' understanding of the program.
- Trainers' qualifications and required skills to implement the program successfully.
- Trainers' feedback regarding the program itself (materials, curriculum, etc...)
- Trainers' feedback regarding program implementation process?
- Trainers' level of comfort and satisfaction with the program.

Another main limitation in this study is that all of critical measures regarding children's performance were taken from mothers' point of view. Therefore there's a high probability of errors in judgment, as they may not be urbane enough to make accurate value judgments. For example, measuring satisfaction of mothers might be colored by mothers' high expectations of the program. This is the result of having no direct measure of the children's end performance after the program implementation on mothers – but measuring children results as per mothers' perceptions.

An additional limitation to be highlighted is that although the study was based on pre/post experimental groups to compare results and underline improvement, no control groups were used to further determine the extent to which the program was effective.

Finally, there are limitations related to the subjects' lack of homogeneity in terms of educational background and availability which caused irregular attention, and, in some cases, attrition. Also, training sites were not adequately equipped with resources (for example, no babysitting services during training), the home environment was not always conducive to educational activities requiring concentration, and finally, some basic materials were not available (specific crayons and other tools).

As this study deals with a complex subject of cognitive awareness and skills development in mothers and children, further research is suggested to determine in more detail what factors play a key role in the change and improvement of children and mothers, and how to best implement the program.

6. CONCLUSION/DISCUSSION

The objective of the present study was to present part of the first cycle of pilot implementation of MOCEP in Lebanon, specifically in the Palestinian refugee camps, in collaboration with ARC, regional non-profit independent organization. High positive feedback was obtained regarding the content of the program, the trainers' skills, and the overall learned skills from the program perceived necessary by mothers for application in daily life with their children. Most of the mothers had a positive impression and expectations of the program, and willingly volunteered to participate. Significant improvement in the performance level of both children and mothers were reports at the completion of the pilot phase. Children had improved their cognitive and social skills, and showed more interest in learning, and mothers were happier and had a healthier relationship with their children. The program also met mothers' expectations, in terms of usefulness and practicality: it has helped mothers mostly in identifying their children's problems, a skill used on a daily basis. The most beneficial part of the program was the "Discussion Topics",

as it seems to encourage open discussion and sharing of point of views, hence better understanding of the topics at hand. Mothers also gave positive feedback about the program implementation in terms of classroom suitability, trainers' skills, and usefulness of information.

6.1. Recommendations

Based on the highly promising results of the pilot program, it is recommended that the program proceed to the next phase of implementation. The following should be taken into consideration:

- Capitalize on the format of the program which involves discussions, simulations, role playing, home visits, corrective feedback and so forth, and that have proven highly successful with trainees.

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