

# **PARENT CHILD MOTHER GOOSE PROGRAM PILOT RESEARCH STUDY**

## **PRELIMINARY FINDINGS**

**In consultation with the Faculty of Social Work, University of Toronto**

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- Purpose of the Study
- Goals
- Study Design
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- Instrumentation
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## **RESEARCH GROUP**

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## **FUNDING**

National Centre for the Prevention of Crime, Ottawa, Canada.

## **PURPOSE OF THE STUDY**

To examine the efficacy of the PCMGP in terms of the following factors:

1. The PCMGP provides **SOCIAL SUPPORT** to caregivers
2. The PCMGP helps to enhance **PERCEIVED PARENTAL COMPETENCE** of caregivers
3. The PCMGP helps to enhance **COPING SKILLS** of caregivers

## GOALS

As indicated in the initial funding proposal, the primary goal of the pilot study is to determine the feasibility of conducting a larger experimental study. The feasibility issues considered are the following:

- Determining the feasibility of implementing various research designs and the cost requirements of each.
- Determining the availability of experimental group respondents and their willingness to participate in the study
- Deciding on appropriate PGMGP sites for inclusion in the study
- Evaluating the efficacy of various recruitment procedures.
- Determining appropriate instrumentation to evaluate the factors under investigation (see page 1)
- Evaluating effective methods of integrating PCMGP staff and teachers into various components of the research project
- Determining staff and budget requirements and feasibility of conducting home-visits
- Conducting literature reviews and consulting with professionals involved in similar research

## STUDY DESIGN

The PCMGP Pilot Study has employed a quasi-experimental comparison group design, using repeated measures at baseline and post-test intervals. Initially, the research design was to incorporate methods of investigating the impact of the PCMGP, in terms of facilitating parent-child attachment. Two methods of investigation, the Strange Situation (Ainsworth, Blehar, Waters, & Wall 1978) and the Attachment Q-Sort (Waters & Deane, 1985) were considered. During the feasibility phase of the pilot study, it was determined that observational methods of measuring attachment would not be possible given our limited financial resource, minimal staff and participant's preference for alternate methods of investigation.

### Active Participants

13 experimental group participants

13 comparison group participants

Attempts were made to recruit a larger sample.

A preliminary survey of the interest in participating in a research project was taken at each of the three testing sites indicated below. Potential respondents were asked to indicate their preference in terms of participating in a home observation procedure (Attachment Q-Sort see above), a clinical observation procedure (Strange Situation, see

above), or complete a repeated series of questionnaire instruments. The PCMGP participants were informed of the expectations of each procedure and the voluntary nature of this research project. Group participants' were also informed that their decision not to participate in the research module would not impact on their acceptance in current or future PCMGP groups.

After reviewing the surveys, it was determined that there was sufficient interest in completing the series of five questionnaires. Subsequently, experimental group respondents were recruited from:

- Parkdale Community Health Centre
- Lakeshore PCMGP
- Elmbank PCMGP

These sites were selected as they were felt to represent the diverse multi-ethnic and socio-economic groups of PCMGP participants.

26 out of the initial 39 experimental and comparison group respondents contacted completed both time 1 and time 2. The overall response rate was 67%.

Dropout occurred most often in the experimental group. The pilot study research group has attributed this to PCMGP participants' reluctance to miss group sessions in order to complete questionnaire schedules. This apparent characteristic of Mother Goose participants has been taken into consideration and measures to avoid dropout in the proposed study are currently being considered.

## **SAMPLING PROCEDURES**

### **Sampling Frame**

Random selection and assignment was not feasible given the small sample size.

### **Experimental Group**

Non-probability purposive sample of current PCMGP participants

### **Exclusionary Criteria**

1. Only caregivers of children 0-2 may participate
2. No previous exposure to PCMGP
3. No concurrent enrolment in a parenting group

## **Comparison Group**

- Convenience sample of participants recruited through classified advertisement
- Comparison group respondents were matched on age of child

## **Exclusionary Criteria**

1. Only caregivers of children age 0-2
2. No previous exposure to the PCMGP
3. No concurrent enrolment in a parenting program

## **INSTRUMENTATION**

### **Self-administered Instruments**

Ireton, H. (1992). The Child Development Inventory.

Procidano, M.E., & Heller, K. (1983). Perceived Social Support – Family Scale.

Folkman, S., & Lazarus, R.S. (1988). Ways of Coping.

MacPhee, D., Benson, J.B., & Bullock, D. (1985). Self-Perceptions of the Parental Role.

Note, the Child Development Inventory was included to screen for cognitive and/or developmental disabilities. It was also used to assess the efficacy of the PCMGP in contributing to improved social and language skills.

## **MEASUREMENT**

A seven-week interval between Time 1 and Time 2 was used in most cases. However, in two cases the respondents were unable to complete questionnaires on the scheduled day, which resulted in as much as 10 weeks between pre-test and post-test. Methods of controlling for time between baseline and post-test among all participants are currently being considered.

### **BASELINE (Time 1)**

- Taken after the second PCMGP session

Attempts were made to complete time 1 testing prior to the first Mother Goose session; however delays in receiving instruments restricted us from doing so.

### **POSTTEST (Time 2)**

- Taken after the 10<sup>th</sup> and final PCMGP session

## **FINDINGS**

### **SELF-PERCEPTIONS OF THE PARENTAL ROLE (SPPR)**

The SPPR measures four factors

- Parental Competence
- Parental Satisfaction
- Parental Investment (importance)
- Integration of parent, spouse, career and friend roles

#### **Low score preferred**

##### **Experimental Group (EG)**

Time 1 average score  
14.92

##### **Comparison Group (CG)**

Time 1 average score  
21

##### **EG**

Time 2 average score  
14.17

##### **CG**

Time 2 average score  
20.15

#### **Finding**

The difference between the experimental and comparison group is significant ( $p < .05$ ) at time 1, with the experimental group having a “better” score prior to completing the PCMGP sessions. This finding does not indicate difference due to the structured intervention.

At post-test, the experimental group maintains a “preferred” SPPR score. However, the difference between the experimental and control group at time 2 is not significant. Rather, it is approaching significance and may be a significant finding based on a larger sample.

## **WAYS OF COPING (WOC)**

#### **Methods of Coping**

Confrontive coping  
Self-controlling

Distancing  
Seeking social support

Accepting responsibility  
Planful problem solving

Escape-avoidance  
Positive reappraisal

**High score preferred**

**Experimental Group (EG)**

Time 1 average score  
58.15

**Comparison Group (CG)**

Time 1 average score  
57.62

**EG**

Time 2 average score  
59.15

**CG**

Time 2 average score  
63.08

**Finding**

The results indicate that both the experimental and comparison groups used each of the 8 coping strategies measured by the WOC. Use of coping style varied only minimally from pre-test to post-test for the experimental group with a non-significant finding ( $p < .05$ ). The difference in average scores in the comparison group was also found to be non-significant.

**Self-Controlling**

**Experimental Group**

Time 1	Time 2
0.14	0.15

**Accepting Responsibility**

**Experimental Group**

Time 1	Time 2
0.11	0.12

**Playful Problem Solving**

**Experimental Group**

Time 1	Time 2
0.17	0.18

Given that there are no established criteria for determining preferred styles of coping, we may only comment solely on evidence of change in average coping scores. As the above average scores indicate, the experimental group increased slightly in their use of “Self-Controlling Coping,” “Accepting Responsibility,” and “Planful Problem Solving”.

## PERCEIVED SOCIAL SUPPORT – FAMILY SCALE (PSS-FAM)

### High score preferred

#### Experimental Group (EG)

Time 1 average score  
15.60

#### Comparison Group (CG)

Time 1 average score  
14.77

#### EG

Time 2 average score  
17.36

#### CG

Time 2 average score  
14.85

### Finding

There is no difference between the experimental and comparison group at time 1. There appears to be a difference in the average scores of the experimental and comparison group at time 2. However, this difference was found not statistically significant ( $p < .05$ ).

## CHILD DEVELOPMENT INVENTORY (CDI)

### Measures development in 8 areas:

#### **Social**

Self-help

Gross motor

Fine motor

#### **Expressive language**

#### **Language comprehension**

Letters

Numbers

The skills indicated in bold font were measured as part of the PCMGP pilot study.

#### **Time 1 Average Difference (score – norm)**

Social Scale

EG 1.00

COMP 0.46

Expressive Language

EG 0.75

COMP 0.23

Language Comprehension

EG 1.67

COMP 0.08

#### **Time 2 Average Difference (score – norm)**

EG 1.45  
COMP 0.56

EG 0.18  
COMP 0.22

EG 1.09  
COMP 0.37

### **Findings**

No significant change between time 1 and time 2 for either group. The difference between the experimental and comparison groups (Social Skills, Language Comprehension) is approaching significance at time 2 ( $p < .05$ ).

### **INTERPRETATION**

Preliminary evidence to suggest that the PCMGP may enhance Self-Perception of the Parental Role, which includes: parental competence, parental satisfaction, parental involvement and may influence the integration of spouse, career and friend roles.

Intervention has no impact on Coping.

Mother Goose participants appear to have higher levels of social support when entering the group. These scores are maintained throughout and not influenced by the intervention. Comparison group respondents scored lower on Social Support scales, which remained consistent from Baseline – Time 2.

Preliminary evidence to suggest parental report of children's social skills and language comprehension as measured by the Child Development Inventory has increased due to the PCMGP.

### **LIMITATIONS**

- Small sample size (due to goals of pilot study)
- Baseline to post-test only 7 weeks
- Varied testing intervals
- Attrition

### **RECOMMENDATIONS FOR FUTURE RESEARCH**

- Consolidate experimental group sampling to one PCMGP site. This would require the development of a PCMGP testing site with random assignment into research and non-research modalities.
- To recruit sufficient comparison group subjects it is suggested that the future research design allow for ample recruitment time and adjust budget requirements to allow for an expansion of the sampling frame. PCMGP researchers may

continue to make use of informal networks of recruiting respondents and establish a consistent mechanism for advertising comparison group recruitment.

- Based on pilot study data, a sample size estimate for the proposed research may be calculated (i.e. standard deviation and population mean of current sample).
- To reduce attrition, allow for the completion of questionnaire schedules outside of PCMGP session time.
- Ensure true baseline measurement and consistent testing intervals among all research participants.
- Continue collaboration with community professionals involved in similar research.
- PCMGP researchers should allocate sufficient funds for the hiring of a full-time project coordinator. Also, 1-2 research assistants will be required during the recruitment and testing phase. Note, staff requirements will depend on whether home visits will continue to be conducted.

## **REFERENCES**

Ainsworth, M.D.S., Blehar, M.C., Waters, E., & Wall, S. (1978). *Patterns of attachment*. Hillsdale, NJ: Lawrence Erlbaum.

Waters, E. & Deane, K.E. (1985). Defining and assessing individual differences in attachment relationships: Q-methodology and the organization of behavior in infancy and early childhood. In Bretherton, I. and Waters, E. (Eds.), *Growing points of attachment theory and research*. *Monographs of the Society for Research in Child Development*, 50, 41-65.