

**TŪTŪ AND ME®:**

**ASSESSING THE EFFECTS OF A FAMILY  
INTERACTION PROGRAM  
ON PARENTS AND GRANDPARENTS**

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## ABSTRACT

This paper presents the results of an evaluation of the effects of Tūtū and Me, a traveling preschool program in Hawai'i, on the quality of care offered by Native Hawaiian parents and grandparents (mākua and tūtū). Based on a family interaction “Play and Learn” model, the program aims to help families prepare their children for school. Offered during an 11-month program year, the services include two-hour sessions twice a week in which the adults and children interact together in a variety of activities; Tūtū Talks, mini-lectures on aspects of child development; caregiver resource centers and children’s book bags; and child assessments.

The study evaluated changes in the quality of adult-child interactions through pre- and post-observations of adult-child interactions at program sites with the Child Care Assessment Tool for Relatives (CCAT-R). It also included a participant survey to identify caregiver characteristics that might be associated with quality. The survey, the pre-test observations and post-test observations consisted of three samples: the survey, in which there were 249 respondents; the pre-test observations of 180 parents or other family caregivers; and the post-test observations of 113 parents or other family caregivers. Of the total number of observations in the pre- and post-tests, there were 58 matched pairs of parents or other family caregivers and focus children.

The results of the pre- and post-tests indicated that there were improvements in the quality of interactions for children under five on three of the four factors measured by the CCAT-R—bidirectional communication, unidirectional communication, and engagement, and there was a slight increase in the nurturing scores for children under three. The changes in the language and engagement factors were statistically significant for the younger children. The findings also point to some correlations between quality and participant characteristics such as training and child care work experience.

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**PREFACE**

In the summer of 2005, Hawai'i's Tūtū and Me approached the Institute for a Child Care Continuum at Bank Street College of Education because it was interested in the Child Care Assessment Tool for Relatives (CCAT-R: Porter, Rice, & Rivera, 2006), an observation instrument that the Institute has developed to assess quality in child care provided by relatives (Porter, Rice & Rivera, 2006). It wanted to use the CCAT-R, along with annual participant surveys and assessments of children, to measure the impact of its program on the quality of the care that grandparents (Tūtū) and parents offered their children. The Institute's response was enthusiastic, because an evaluation of Tūtū and Me would represent a significant contribution to the knowledge base about the effectiveness of efforts to support family, friend and neighbor caregivers.

Institute staff provided training on the CCAT-R to Tūtū and Me staff in winter, 2006. Discussions during the training led to a broader role for the Institute in Tūtū and Me's work. Working with Tūtū and Me staff, it designed a two-part study: an assessment of the implementation of the program and an evaluation of its effects on participants' practice. The implementation study, which consisted

of three focus groups with 35 program participants and eight interviews with program staff, was completed in the fall of 2006. It resulted in recommendations for the development of several new components that will be piloted in 2008. The evaluation of effects was conducted between the fall of 2006 and the spring of 2007. This report presents the results of that study.

## CHAPTER 1: INTRODUCTION

### Background

Family, friend and neighbor child care—child care that is legally exempt from regulation-- is the most common form of child care for children under five whose parents are working (Susman-Stillman, forthcoming). Infants and toddlers represent the largest proportion of children in these arrangements, which are frequently used by families of color and those who have low-incomes (Capizzano, Adams, & Sonestain, 2000).<sup>1</sup> Among family, friend and neighbor caregivers, relatives—primarily grandmothers--are most common caregivers (Anderson, Ramsburg, & Scott, 2005; Brandon, Maher, Joesch, Battelle, & Doyle, 2002; Chase, Schauben, & Shardlow, 2005).<sup>2</sup>

With the passage of welfare reform in 1996, family, friend and neighbor care began to emerge as public policy issue, as states started to recognize that large numbers of children, whose families were eligible for and used public child care subsidies, were in these arrangements. Concerns were raised about the health and safety of these settings because they did not have to comply with standards for regulated family child care. There were also questions about the support that the caregivers, who were not subject to educational or training requirements for regulated family child care providers, might offer for children's

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<sup>1</sup> Family, friend and neighbor care is used by families of all income levels, but families with low incomes tend to rely on it more commonly than others (Boushey & Wright, 2004; Johnson, 2005).

<sup>2</sup> In all 50 states, relatives are legally exempt from child care regulations that apply to family child care (Porter & Kearns, 2005).

development. Until the mid-90s, there had been little research on family, friend and neighbor care, and, as a result, the evidence to guide policy decisions about efforts to improve quality was limited (Susman-Stillman, forthcoming).

During the following decade, this situation changed. Family, friend and neighbor care became the focus of a growing number of studies on the national and state level. Data began to emerge about the use of this care, the characteristics of the caregivers as well as their motivations for providing care, and caregivers' interest in obtaining support for their work (Porter, 2006; Maher, 2007). In addition, several studies examined the quality of care provided in these settings (Layzer & Goodson, 2006; Maxwell, 2005; Pausell, Mekos, DelGrosso, Rowand, & Banghart, 2006; Porter, Rice & Rivera, 2006).<sup>3</sup>

There was also some attention to initiatives that aimed to improve quality for children in these arrangements. Two surveys of the use of Child Care Development Fund quality improvement funding included efforts that aimed to serve family, friend and neighbor caregivers as well as those that were designed to serve child care centers and regulated family child care (Porter et al. 2002; Pittard, Zaslow, Lavelle, & Porter, 2006). A third survey looked specifically at initiatives that were designed to support this population of caregivers (Porter & Kearns, 2005). The findings indicated that initiatives used a variety of strategies to address issues in family, friend and neighbor care--training through workshops

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<sup>3</sup> Family, friend and neighbor care was also included in several studies that examined the quality of care used by TANF recipients (Coley, Chase-Lonsdale, & Li-Grining, 2001; Fuller & Kagan, 2000).

or support groups, distribution of materials and equipment (sometimes as an independent strategy and sometimes as an additional component), and technical assistance. Research that looked at initiatives funded with private sources identified other types of strategies such as Play and Learn groups and home visiting that were being used to support these caregivers (O'Donnell et al., 2006).

The surveys also looked at the kinds of data that were being collected and the types of evaluations that were used to assess the results of the initiatives.

They found that, in most cases, evaluations focused on program implementation—the number of participants who were served and their characteristics as well as their satisfaction with the program (Pittard et al., 2006; Porter et al., 2002; Porter & Kearns, 2005). A small number of evaluations examined effects, but most of the data were based on self-reported changes in knowledge or skills. Some data on lessons learned was reported in other studies (O'Donnell et al., 2006; Organizational Research Services, 2005; Pausell et al., 2006). Only a few have examined observed effects on caregiver practice (Maher, 2007a; McCabe, 2007; Porter, 2006).

The scarcity of information about the effects of efforts to improve quality in family, friend and neighbor care has some serious implications. On the one hand, it means that policy makers must make decisions about the types of initiatives that will achieve their goals in the absence of research about what works for this population of caregivers. On the other hand, the lack of data means that program

operators—organizations that seek to design initiatives for family, friend and neighbor care—have little evidence to determine whether their own efforts accomplish the intended results.

In part, the lack of data on the effectiveness of initiatives for family, friend and neighbor caregivers may be related to the newness of these efforts. Many have been developed since 2000, and may not be ready for an impact evaluation. Organizations also face a lack of funding to conduct research on their programs (Shivers, 2006). In addition, there is a concern about how to measure quality in these settings, which do not look like regulated family child care (Maher, 2007b). There is some agreement that instruments like the Family Child Care Rating Scale may not be appropriate, because it was initially intended to assess quality in regulated family child care. While two new instruments—the CCAT-R and the Quality of Early Childhood Care Settings Rating Scale (QUEST: Goodson, Layzer, & Layzer, 2005)—are now available, but they have not been widely used in studies (Maher, 2007b).<sup>4</sup>

This paper is intended to fill some of the gap in the knowledge base about the effects of initiatives for family, friend and neighbor caregivers. It reports the results of an evaluation of Tūtū and Me, a family interaction program that uses a Play and Learn approach to support caregivers in Hawai'i. Family interaction

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<sup>4</sup> The CCAT-R, which was developed in 2006, has been used in two small case studies and the Early Head Start Enhanced Home Visiting Pilot. The QUEST was used in the sub-study of the National Study of Low-Income Child Care and a study of quality in family, friend and neighbor care in Minnesota.

programs aim to help parents and other caregivers prepare their young children for school by providing opportunities for adult-child interactions in group settings that are facilitated by trained early childhood staff. The intention is to enhance caregivers' understanding of how children learn and to how to support it. The Play and Learn model has been implemented in a variety of ways ranging from drop-in programs in parks or shopping malls to programs that require formal enrollment and a commitment to attend.

The evaluation, which was conducted in 2006, aimed to assess the effects of Tūtū and Me on the quality of care that participants offered to children. It measured the quality of adult-child interactions during program activities rather than at home in response to cultural considerations raised by the staff. The study relied on these site-based observations as proxies for the care that might occur at home.

In addition to contributing to our understanding of the results of initiatives for family, friend and neighbor caregivers, the study also provides some insights into the potential effectiveness of Play and Learn approaches. Tūtū and Me, like many Play and Learn programs, serves both parents and grandparents. The findings about the differences in the effects on these caregivers point to some strategies for addressing their needs.

## CHAPTER 2: THE TŪTŪ AND ME MODEL

### The Program

**Purpose.** Established in 2001, Tūtū and Me aims to help grandparents and parents to prepare their children (keiki) for school. Its primary target population is Native Hawaiian children because data indicate that many of these children are not considered ready for school. In 2005, the Hawai'i School Readiness Task Force (2005) reported that 40% of Hawai'i's kindergarteners entered school unprepared. Among Native Hawaiian children, more than half lack any formal preschool experience (2005 Native Hawaiian Educational Assessment by Kamehameha Schools). Many of these children also demonstrate low achievement levels in elementary school (Native Hawaiian Educational Assessment: Kana'iaupuni, Malone, Ishibashi, 2005). Because a large proportion of Native Hawaiian children are raised by or cared for by their grandparents, Tūtū and Me identifies grandmothers and grandfathers (Tūtū) as a primary population, although it encourages parents to enroll as well.<sup>5</sup> The program is supported with funding from the U.S. Department of Education Native Hawaiian Education Act, the Kamehameha Schools, the Office of Hawaiian Affairs, the state Department of Human Services and private foundations.

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<sup>5</sup> Approximately 38% of grandparents in Hawai'i reported that they were raising their grandchildren (Hawai'i Executive Office on the Aging, 2005).

**Scope and Size.** In 2007, Tūtū and Me provided services at 18 predominantly Native Hawaiian communities on four islands. The six original sites are on O‘ahu: Hale‘iwa on the North Shore; Makakilo in Central O‘ahu; Waianae on Leeward O‘ahu; Pauoa and Papakōlea in urban Honolulu; and Kāne‘ohe on Windward O‘ahu. There are also six sites on Hawai‘i, the Big Island. Two of them--Kohala and Waimea in West Hawai‘i—are among the oldest sites. In 2005, Tūtū and Me sites added two sites, Kea‘au and Pāhoa, in East Hawai‘i. Two new sites on Hawai‘i, Na‘alehu (Waiohinu) and Ocean View Estates, opened in 2006. In the same year, Tūtū and Me created two sites on Kaua‘i: Kapa‘a and Anahola in East Kaua‘i. A year later it began serving two communities in West Kaua‘i. Moloka‘i, with two sites that opened in 2005--Kaunakakai and Kualapu‘u-- has the smallest number of sites any of the islands served by Tūtū and Me. By 2007, Tūtū and Me had the capacity to serve 1800 participants, 900 adults (parents and grandparents) and 900 children, annually, with 50 adult/child dyads at each site. In 2006, it served 1300 participants in 16 communities. There are no income requirements for participation, although many of the participants have low incomes because the sites are located in communities with a high proportion of working poor families. Tūtū and Me does not charge for enrollment; the program is free.

**Model.** Tūtū and Me uses a traveling preschool approach that was originally developed for the Kamehameha Schools by Ginger Fink in the early

1990s. It is based on a “Play and Learn” family interaction model that aims to enhance parents’ and grandparents’ understanding of how children learn by engaging them in activities together. Programs are offered in the community and incorporate cultural values and practices to strengthen the link between “school” and home. Through interactions with the children, the adults learn about different aspects of child development and ways to support them. To increase these skills, staff model the interactions, moving among various activity centers.

Tūtū and Me differs in several ways from some “Play and Learn” programs. Rather than using a permanent location, staff teams travel by vans to the communities where churches, schools and community organizations have offered space. The teams, which consist of a lead teacher, two teacher aides, and an assessment specialist, all early childhood educators, unload the program equipment—mats, materials, snacks, and tables for the activity centers—from the van, conduct the program, and then repack the van and return to the home office. Because adults participate with the children, the program has the capacity to serve 100 participants--50 adults and 50 children—at each site, but enrollment generally averages approximately 35 adults and the children who accompany them.<sup>6</sup>

Unlike some “Play and Learn” programs, adults formally enroll in Tūtū and Me, making a commitment to attend two-hour sessions twice a week for the 11-

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<sup>6</sup> Typically parents and grandparents bring one child.

month program year, which extends from August to June. Children as young as newborn can participate until they are five-years-old; parents and other family caregivers can bring as many as three children at a single time. The majority of the children are three-years-old or younger.

Tūtū and Me is also more structured than some other “Play and Learn” programs. It uses a formal curriculum that is organized around learning themes as well as Native Hawaiian culture and values. Each session opens with a circle time, beginning with a morning greeting song in which each child’s and caregiver’s name is sung. Circle time continues with other songs, a book or a movement activity. Then the adults and children can choose among a variety of centers that offer activities such as art, reading, dramatic play, manipulatives, water or sand play. At each activity center, signs provide information about how the activity supports aspects of child development as well as guidance for the adults about engaging children in the activity. Some sites have a Tumble Bus for physical activities. At the end of the hour, the children and the adults participate in “Clean-Up,” helping to organize the equipment that the staff will reload in the van. The session closes with another circle time, with additional songs and movement activities, and a formal “Aloha” song.

Hawaiian culture and language are an integral part of Tūtū and Me. Each month, one Hawaiian value—like “ha;aha;a” (humble, humility)--is highlighted, and the values are a natural part of the program. There is a mix of English and

Hawaiian throughout the activities from songs and stories during circle time to the signs on the activity tables. Children also are exposed to Hawaiian traditions such as music and hula as well as fishing and net-making. Sometimes “kūpuna” (elders) are invited to demonstrate their skills.

To increase parents’ and grandparents’ awareness about child development, Tūtū and Me includes some other components. Tūtū Talks, 5- to 10-minute mini-lectures on different topics ranging from child development to health and safety, are offered during the opening circle time twice a week. Companion tip sheets on the topic are provided to supplement the information. Each month the participants receive a calendar of daily activities that adults and children can do at home together. Each site also has a Caregiver Resource Center with a variety of materials for adults to borrow. They also distribute Keiki Book Bags and backpacks that children use to take home books and other teaching materials.<sup>7</sup>

Tūtū and Me also conducts assessments of the children. Program staff make an annual home visit to establish the relationship between the staff and the family, and they provide support to parents and grandparents in completing the Ages and Stages Questionnaire on an on-going basis. The team Assessment specialist also provides referrals for children who have been identified with

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<sup>7</sup> Many “Play and Learn” programs also distribute book bags and provide resources for caregivers.

developmental delays and offer information to participants about other services that the family may want or need.

### **Evaluation of Program Results**

Since its inception, Tūtū and Me has tracked children's progress in the program through regularly scheduled testing. Assessment specialists administer the Peabody Picture Vocabulary Test (Dunn & Dunn, 1997) twice a year to all children between 2½ and 5 years of age. Children are also assessed with the Ages and Stages Questionnaire (Bricker & Squires, 1980) as well as observations with pre-selected areas of the Work Sampling System for children 3 to 5 (Meisels, Liaw, Dorfman, & Nelson, 1995).

Until 2006, assessment of the parents and grandparents was conducted primarily with two measures: staff observations of skills included on a checklist and an annual survey which asked questions about satisfaction with the program and how Tūtū and Me had helped them and the children. In addition, the program collected data on attendance and participation in take-home activities.

## CHAPTER 3: METHODOLOGY

### Methods

The purpose of the Institute's study was to assess the effects, if any, Tūtū and Me has on participants' caregiving practices and the support they offer for children's development. The evaluation design consisted of a participant survey and pre/post observations of a sample of participants with the CCAT-R.

In mid-winter 2006, Institute staff trained eight Tūtū and Me staff to use the CCAT-R. Although relying on program staff to conduct observations raised the possibility of introducing bias into the study results, Tūtū and Me intended to integrate the CCAT-R into the continuing program evaluation and staff needed the skills to use it. The training consisted of one day of classroom work as well as practice on three videotaped observations. During the mornings on the second and third days, four teams of a trained observer and two staff members conducted observations at Tūtū locations on O'ahu. Additional practice sessions on the videotaped observations were held in the afternoons. At the conclusion of the training, six of the staff had achieved the CCAT-R standard of reliability of .80 exact agreement on individual items. During the next two weeks, these reliable observers trained the other two staff with the practice videos as well as on-site observations to help them become reliable.

The study began in August 2006 with a survey of participants at 16 sites on the four islands--O‘ahu, Hawai‘i, Kaua‘i and Moloka‘i.<sup>8</sup> It consisted of questions about demographic characteristics for all participants, as well as a section about attitudes towards providing care and relationships with parents for the grandparents and other caregivers. The questions were based on the CCAT-R interview. (Please see the following section on measures for a description of the CCAT-R).

The survey was distributed to the island site managers, who gave it to participants during the first two weeks of program sessions. Participants were asked to return it to the site managers within two weeks. The site managers sent the questionnaires to the central office which deleted any individual identification and assigned case numbers. Batched questionnaires were then sent to the Institute to tabulate.

The pre-test observations with the CCAT-R followed in September. The week before they were conducted, the staff observers reviewed the practice videos to correct for drift and to recheck their reliability. During the following two weeks, observations were conducted with parents and grandparents at the same 16 sites where the questionnaire had been distributed. One third of the participants were selected for observations. Each observation was approximately an hour. To reduce the possibility of bias, the staff did not conduct observations

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<sup>8</sup> The two new sites on Kaua‘i had not opened yet.

with participants in their own sites. Participants were assured of their confidentiality.

The post-test observations were conducted at the same 16 sites in June 2007. To correct for drift, the staff trained again on the video-taped practice observations and conducted two on-site observations to ensure that they were reliable. The observers followed the same procedures that had been used in the pretest, selecting one third of the participants who were present that day for the observations. Although staff did not attempt to observe the participants who had been assessed during the pre-test, there were 58 matches—the same participants in both the pre-test and the post-test.

The Institute tabulated and analyzed the survey data during early winter 2007. During February and March, it cleaned, entered and analyzed the pre-test data. Post-test data were cleaned, entered, and analyzed during summer 2007. The draft results were shared with Tūtū and Me program staff in late fall 2007.

## **Measures**

The CCAT-R, the instrument used for observations, was developed during a five-year period by the Institute for a Child Care Continuum to assess the quality of child care provided by relative caregivers for children under six (Porter, Rice, & Rivera, 2006).<sup>9</sup> It has been used in an evaluation of family, friend and

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<sup>9</sup> The CCAT-R's development and psychometric properties are described in *Assessing Quality in Family, Friend and Neighbor Care: The Child Care Assessment Tool for Relatives* (Porter, Rice and Rivera, 2006).

neighbor child care quality in the Early Head Start Enhanced Home Visiting Pilot (Pausell et al., 2006) as well as two small case studies of initiatives for family, friend and neighbor caregivers in New Mexico and Alabama (Porter, 2005). Although it was intended for observations in the home setting, it has also been used in other group settings.<sup>10</sup>

The CCAT-R consists of five components. They are the Action/Communication Snapshot; the Summary Behavior Checklist; the Health and Safety Checklist; the Materials Checklist; and the Caregiver Interview. There are two versions of each Checklist, one for children under three years of age, and another for children who are between three and six. The complete observation typically takes two hours.

**The Action/Communication Snapshot.** Two components—the Action/Communication Snapshot and the Summary Behavior Checklist—use time sampling to measure the frequency of specific interactions between a single caregiver and a focus child. A Snapshot and a Behavior Checklist are completed six times during an observation. During the Snapshot the researcher observes the caregiver and the focus child for 20 seconds and then records the observation in the following 20 seconds. This process is repeated 10 times after which the observer completes the Behavior Checklist, which provides additional information about what has occurred during the six-minute and 40-second cycle.

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<sup>10</sup> Step-Up, a program that uses “Play and Learn” groups as well as other activities, is using the CCAT-R as a pre- and post measure in its evaluation.

The Snapshot consists of four categories, two that relate to the caregiver and two that relate to the focus child, and a total of 20 items. The first two categories relate to the caregiver's interactions with the focus child. One includes the caregiver's verbal communication, with such items as the caregiver's response to the child's verbal communication and language and the types of language she uses (asking questions; giving directions; naming or labeling objects, people or pictures; or other talk). The other category includes items about her actions with the focus child—engaging in an activity, attending to other children, or directing the child's behavior without regard to the child's interest.

The two categories that relate to the focus child parallel the caregiver categories. One includes items about the focus child's vocalization or talk to the caregiver, other adults, or children. The other consists of items that relate to the focus child's interactions including those with the caregiver, other children and adults; safe materials or those that are harmful; and watching television. There is also one item specifically for infants who are attending to objects.

**The Summary Behavior Checklist.** The Summary Behavior Checklist provides the context for understanding the frequency of the interactions in the Action/Communication Snapshot. It consists of 9 categories and 42 items. The categories include: predominant location of focus child during observation period (inside or outside); predominant child tone; predominant caregiver tone; child activity type; caregiver activity with focus child; toileting/diapering; caregiver

interaction with focus child; behavior management; and child safety. In addition, the Checklist includes other items like hugging or kissing that do not warrant the 20-second time sampling intervals. Because the study observations were conducted at the site rather than at home, the time between observation cycles for the Snapshot and the Behavior Checklist was shortened from 15 minutes to 5 minutes to accommodate the program schedule.

**The Checklists.** The Health and Safety Checklist and the Materials Checklist are intended to assess the quality of the caregiving environment. They include items that can be expected in the home rather than those that would be seen in a professional child care setting. The items in the Health and Safety Checklist are based on commonly available knowledge about accepted equipment such as electrical outlet covers and safety gates as well as accepted practices such as putting babies to sleep on their backs and supervising children while they are bathing. The Materials Checklist includes readily available items like books and puzzles that could be found in the home. It measures the availability of these items rather than the quantity. Because the observations in the study were not conducted in the home, the Checklists were not used.

**The Caregiver Interview.** The Caregiver Interview, which generally takes 20 to 30 minutes, is intended to gather information about the caregiver's demographic characteristics as well as the nature of the child care arrangement—the number and ages of the children in care and their relationship

to the caregiver; the child care schedule, including the duration of the arrangement with the focus child, and payment. It also includes questions related to attitudes towards providing care in general, and attitudes about caring for the focus child in particular. In addition, the interview includes a series of questions about the relationship between the caregiver and the parents.

The evaluation did not include the CCAT-R interview because Tūtū and Me wanted to use a survey. As we noted earlier, the survey included questions on demographic characteristics, and, for caregivers, questions about providing child care for the focus child, as well as relationships with parents. In addition, questions about payment and income were eliminated as a result of concerns raised by Tūtū staff that the answers might not be accurate.

**Rating and Scoring.** The CCAT-R measures quality on four factors: caregiver nurturing; caregiver engagement; bidirectional communication; and unidirectional communication (Table 1: CCAT-R Scoring and Rating). Scores for each factor are rated as poor, acceptable or good based on norms from the CCAT-R field test (Porter et al., 2006). There are separate sample ratings in each factor for children under 3 and those over 3. For children under age 3, nurturing scores under 7 are rated as poor; those between 7 and 11 as acceptable; and those above 11 as good. The engagement factor for children under 3 is considered poor if the score falls below 47, acceptable if it ranges between 47 and 57, and good if it exceeds 57. The bidirectional score for

children under three is poor if it is below 79, acceptable if it is between 79 and 107.5, and good if it is above that score. The lower level for unidirectional communication is 48.5, those between 48.5 and 68.5 as acceptable, and scores above 68.5 as good.

For children three and over, a nurturing score below 3 is poor, between 3 and 5 is acceptable, and above 5 is good. On engagement, a score below 44 is poor, between 44 and 56.5 is acceptable, and above 56.5 is good. For bidirectional communication, scores below 77 are rated as poor, those between 77 and 108.5 as acceptable, and scores above that number are rated as good. Unidirectional communication scores below 39.5 are poor, those between 39.5 and 61 as acceptable, and scores above that number as good.

**Table 1: CCAT-R Rating and Scoring**

Nurturing			
	Poor	Acceptable	Good
Under 3	< 7	7 - 11	> 11
Over 3	< 3	3 - 5	>5

Engagement			
	Poor	Acceptable	Good
Under 3	< 47	47 - 57	> 57
Over 3	< 44	44 - 56.5	> 56.5

Bidirectional Communication			
	Poor	Acceptable	Good
Under 3	< 79	79 - 107.5	> 107.5
Over 3	< 77	77 - 108.5	> 108.5

Unidirectional Communication			
	Poor	Acceptable	Good
Under 3	< 48.5	48.5 - 68.5	> 68.5
Over 3	< 39.5	39.5 - 61	> 61

## CHAPTER 4: THE SURVEY

The survey, the pre-test observations and post-test observations consisted of three samples: the survey, in which there were 249 respondents; the pre-test observations of 180 parents or other family caregivers; and the post-test observations of 113 parents or other family caregivers. Fifty-eight pairs of parents or other family caregivers and focus children were observed in both the pre- and the post-tests.

### **The Survey Sample**

A total of 269 questionnaires were completed. Of the total, 20 could not be included in the analysis because there were problems with the data: multiple answers to the same question; more than half of the questions with incomplete answers; or answers that were illegible. The final survey sample consisted on 249 responses. The largest proportion of responses, slightly less than half, were from the six sites on O‘ahu (109); another third (74) were from the six sites on Hawai‘i. Kaua‘i and Moloka‘i, each with two sites, had 39 and 20 responses respectively. The number of responses per site ranged from 1 from Kohala, a three-year-old site on Hawai‘i, to 30 from Makakilo on O‘ahu, one of the oldest Tūtū and Me sites.

**Demographic Characteristics.** Almost all of the survey respondents, 93%, were women. (Table 2: Survey Participant Characteristics). Parents

represented the vast majority, accounting for 77% (193). The remaining 23% (56 respondents) were other family caregivers, most of whom were grandparents.<sup>11</sup> This distribution between parents and grandparents reflects the distribution in the program. The others were aunts or great-grandmothers. Among the 18 men in the sample, 16 were fathers and 1 was a grandfather.<sup>12</sup> Ages ranged widely from 20 to 82. On average, parents were 33. At 57, the other family caregivers' average age was considerably older.

**Ethnicity.** Native Hawaiians or part-Hawaiians accounted for the largest self-identified ethnic group in the sample. They represented 43% of the total. The second largest ethnic group was European Americans, accounting for slightly less than a third, 30%, followed by those who self-identified as Asians, 18%. Nearly 30% of the respondents who answered this question identified multiple ethnic backgrounds.

**Language.** Despite the multiculturalism of the sample, almost all of the respondents reported that they spoke English to their children and that the children spoke English to them. At the same time, a significant proportion, 42%, indicated that they spoke two or more languages to the children. A total of 58 respondents reported that they spoke Hawaiian to the children and nearly half of them indicated that the children spoke Hawaiian to them. Other languages spoken to children included Spanish, Japanese, and Chinese.

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<sup>11</sup> Waianae, Pauoa and Makakilo, all on Oahu, had the largest number of responses from caregivers.

<sup>12</sup> The other male did not identify his relationship to the child.

**Education.** Educational levels ranged widely. Of the 244 participants who responded to the question, one third reported some college and close to 30% indicated that they had a two-year or four-year college degree. Another 16% reported a high school degree or equivalent. Only 8 participants reported that they had not completed high school.

**Specialized child care training.** A small proportion of the respondents, 28%, indicated that they had some specialized training in early childhood. Among this training, early childhood education courses was the most common (70), followed by parent education workshops (62) and teacher training (36).<sup>13</sup>

**Work experience in child care.** An even smaller proportion of respondents reported some experience with work in a child care setting. Approximately 17 % (41) of those who responded to the question indicated that they had worked in a child care program and another 14 % (34) in some other kind of early childhood setting such as a Sunday school or an after-school program. Thirteen percent reported that they had worked in a school.

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<sup>13</sup> Thirty respondents indicated that they were currently participating in a program for caregivers, presumably Tutu and Me.

**Table 2: Survey Participant Characteristics**

**Caregiver Gender**

		Frequency	Percent
Valid	Male	18	7.2
	Female	223	89.6
	Total	241	96.8
Total		249	100.0

**Relationship to Keiki**

		Frequency	Percent
Valid	Mother	173	69.5
	Father	16	6.4
	Grandmother	36	14.5
	Grandfather	3	1.2
	Aunt	7	2.8
	Great-Grandmother	9	3.6
	Caregiver	1	.4
	Total	245	98.4
Missing	Answers	4	1.6
Total		249	100.0

**Caregiver race and ethnic background**

		Frequency	Percent
Valid	Native Hawaiian/Part Hawaiian	108	43.4
	Caucasian	75	30.1
	Hispanic	11	4.4
	Native American or Alaska Native	1	.4
	Asian	44	17.7
	Other	5	2.0
	Total	244	98.0
	Missing	Answers	5
Total		249	100.0

**Highest Education Level Completed**

		Frequency	Percent
Valid	Elementary	2	.8
	Middle/Junior High	1	.4
	Some High School	5	2.0
	High School Diploma or equivalent	38	15.3
	Some college	79	31.7
	2-year College degree	28	11.2
	4-yr College degree	43	17.3
	Some graduate school	17	6.8
	Graduate degree	31	12.4
	Total	244	98.0
	Missing	Answers	5
Total		249	100.0

**Taken child development or early childhood courses?**

		Frequency	Percent
Valid	No	173	69.5
	Yes	70	28.1
	Total	243	97.6
Missing	Answers	6	2.4
Total		249	100.0

**Worked in a child care program?**

		Frequency	Percent
Valid	No	202	81.1
	Yes	41	16.5
	Total	243	97.6
Missing	Answers	6	2.4
Total		249	100.0

**Differences between Parents and Other Family Caregivers.** There were some significant differences between the parents and the other family caregivers who responded to the survey. The proportion of Native Hawaiians was higher among caregivers than parents, nearly double with 63% compared to 37%. Among the parent survey respondents, there was a more even distribution between Native Hawaiians and European Americans than there was among caregivers.

In addition, there was wide variation in educational levels. Approximately 31% of the caregivers who responded to the question reported that they had not had education beyond high school compared to 14 % of the parents. Consistent with this finding, the proportion of caregivers who reported some college (66%) was considerably lower than that of parents (86%), and the proportion of caregivers with graduate degrees (7%) was half that of parents (15%).

There were also some differences between other family caregivers and parents in specialized training and work experience in child care. A slightly higher proportion of caregivers reported some early childhood education training than parents (61% and 50% respectively); participation in child care workshops was higher among caregivers (27%) than among parents (15%) as well. Despite these differences, approximately equal proportions of caregivers and parents, 13%, had worked in early childhood classrooms and other child care programs such as Sunday schools. On the other hand, higher proportions of caregivers

than parents had worked in Head Start (17% compared to 3%), and family child care homes (7% compared to 3%).

### **The Survey Findings**

One of the purposes of the survey, and the CCAT-R interview on which it is based, is to enhance understanding of caregiver attitudes towards child care, their involvement with the focus child outside of the child care arrangement, and their relationship with parents. These data can provide useful information for programs to help them identify possible conflicts that may threaten the stability of the care or tensions that may spill over on to the child. The questions can also be useful for analytic purposes: the CCAT-R field test, for example, indicated that caregivers' perceptions of parents' interest in their lives were associated with higher nurturing scores (Porter et al., 2006).

**Attitudes towards Child Care.** Research indicates that family, friends and neighbors may provide child care for different reasons than family child care providers (Morrissey, 2007; Susman-Stillman, forthcoming). Studies indicate that caregivers often say they do this work because they want to help out the family, or because they want to be involved with the child's life. The CCAT-R Caregiver Interview includes several questions related to this issue that were included in the Tūtū and Me survey.

The responses to these questions paralleled findings from other research. Of the 56 caregivers in the sample, nearly half-- 47%--cited their love for the child

as their primary reason for caring for children. Another 17% indicated that they provided care primarily because they wanted to be a part of the child's life, and 15% reported that they wanted to help out the family.

**Beyond child care.** Responses to questions about activities with the children or the family outside of child care seem to reflect the close involvement of the caregivers with the family. Caregivers' duties were rarely limited to child care. Of the 56 family caregivers, only 23% (13) reported that child care was their sole responsibility. The most common additional task was running errands (33) for the parents. Many also cooked for the family (23), picked up prescriptions (15), and/or did laundry (10). Caregivers also reported that they help the parents with housecleaning (7), driving the children around (6), and paying bills or doing banking (2).

There was also a strong indication that grandparents and other family members take children to a variety of places. Almost all of them reported that they visit malls or the park (53), and many take children to the movies or the zoo (50). They also say that they buy books or toys with the children (48), although trips to the library are less frequent (32) than those to stores. Many also visit relatives (48) and their children (45), or friends (43) and their children (40) when the children are in their care.

**Relationships with Parents.** Research has also indicated that the relationship between family caregivers and parents is a distinguishing feature of

family, friend and neighbor care, because the child care arrangement is embedded in the close ties between grandmothers and their daughters or between sisters (Porter, Rice & Mabon, 2003). This connection can lead to both positive and negative results—stronger communication between the caregiver and the parent and involvement in the family life that extends beyond child care, for example, or conflicts about child rearing styles and practices as well as feelings of being overburdened or being taken advantage of (Bromer, 2005).

The Tūtū and Me survey included several questions from the CCAT-R Caregiver Interview about caregivers' communication with parents. Of the family caregivers who responded, most, 79%, indicated that they spoke with the parents-- primarily the mother of the child--every day.<sup>14</sup> They reported that these conversations often focused on the child's activities, routines, feelings, and interactions with others. The family caregivers indicated that they also discussed what was happening in the parent's life or that of the child, but talk about what was happening in their own lives occurred less frequently—"sometimes" rather than "often."

The survey also included questions about the nature of the relationship with parents. On the whole, the family caregivers reported that these relationships were positive. The vast majority of those who responded to these questions—85%-- indicated that the parents valued their relationship with them,

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<sup>14</sup> Only 8% of caregivers reported speaking to the father most often. The rest stated they spoke to adoptive/foster parents or grandparents most.

and that the parents took delight in their close relationship with the child. Many also indicated that they understand the parents' work schedules.

There was, however, greater ambivalence among caregivers about the parents' child rearing practices. Half disagreed with or did not answer the statement that the parent's child-raising approach matched their own, and the same percentage declined to answer or disagreed with the statement that parents used the same disciplinary strategies that they did. There was also some indication that family caregivers felt that parents take advantage of them: approximately four in ten caregivers declined to answer this statement or agreed with it.

## CHAPTER 5: CHILD CARE QUALITY

### Pre-Test Observations

**Sample.** The pretest consisted of 180 CCAT-R observations with participants in 16 sites. Of the total, 169 were analyzed. Eleven observations did not have complete data. The number of observations per site ranged from 7 in Papakōlea to 13 in Waiohinu. The majority of observations, 73%, were conducted with participants who were caring for children under three. The remaining 27% were conducted with participants who were caring for children three and older. Of children under three, those who were ages 2 to 3 accounted for the largest percentage (54%), followed by those who were 1 to 2. Infants under 12 months accounted for the remainder.

**Pretest Findings.** Pretest scores for participants with children under three were above poor on three of the four CCAT-R factors. Ratings for both language factors were acceptable, and that for engagement was good. The scores for bidirectional communication and unidirectional communication were 102.3 and 53.6 respectively, which means that the adults were talking to the children, engaged in activities with them and/ or holding them, and the children were engaged with materials more than half the time during the observation. The mean scores for engagement (69.81) indicated that the parents and other family caregivers were doing activities and using simple language, and children were engaged with materials significantly more than half the time during the

observation. The only factor that had a rating of poor was nurturing with a mean score of 4.48, which means that adults were engaged in hugging, kissing, holding or comforting only slightly more than once during each of the six observation cycles.<sup>15</sup>

Ratings for participants with children three and older were also positive. Mean ratings on nurturing and the two language factors were acceptable, and the rating for engagement was good. The nurturing score was 3.72, slightly higher than the base score of 3, while those for the language factors were at the high end of the range for acceptable (101.13 for the former, and 53.2, for the latter.) On engagement, participants had a mean rating well within the range for good, with a score of 67.02, significantly above the base good score of 56.7.

### **Post-Test Observations**

**Sample.** The second wave of observations was conducted ten months after the baseline date were collected. The sample consisted on 113 participants from the 16 sites. Of the total, there were 58 participants who had also been observed in the first wave of data collection.

There were a few differences between the characteristics of the participants in the matched pairs and the pre-and post-test samples overall. Grandmothers and great-grandparents accounted for a higher proportion of

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<sup>15</sup> There was wide variation in this factor per site, with some scores ranging as very poor and others as good.

participants in the matched pairs than in the larger sample—35% compared to 27%. As a result of the over sampling of caregivers, the proportion of participants between the ages of 30-39 declined by nearly half, while those who were older increased. In addition, the proportion of participants with some college was lower than that for the sample as a whole, and there was a higher proportion of Native Hawaiians.

## **Findings**

**Overall Sample.** Overall post-test data showed some changes in the scores and the factor ratings. Scores for engagement increased for both age groups bringing the rating to good for children under three (with 71.10) and remaining at good with a slight rise in the mean score to 67.18 for older children. There was also improvement in the language scores. For children under three, the rating increased to good on bidirectional communication ( with a mean score of 113.36) and the mean score rose slightly for older children to 101.51, remaining at good. The ratings for unidirectional communication remained the same at acceptable for children in both age groups, although scores improved. The increase in mean scores was greater for children under three than older children, rising to 63.75, while there was a slight improvement in the score to 55.41 for children three and older. The nurturing ratings remained the same for

children in both age groups, although scores rose slightly for children under three (to 4.65), and declined to 3.07 for children three and older.

**Matched Sample.** The changes for children under three were statistically significant for the two language factors and engagement (Table 3: Differences by Age of Child). On bidirectional communication, ratings rose from acceptable to good for very young children, with scores increasing from 102.3 to 114.5. Scores on unidirectional communication also rose for children in this age group, rising from 55.3 to 62.9, although the rating remained the same at acceptable. The ratings for engagement remained at good in the post-test with a slight increase in the score from 67.3 to 71.5.

The trends for children three and older were positive in bidirectional communication and engagement.<sup>16</sup> Ratings for children in this age group did not change, remaining acceptable for bidirectional and unidirectional communication, and at good for engagement. Nurturing scores for children showed a different pattern, rising slightly for very young children from 4.48 to 4.65, while those for older children declined from 3.8 to 3.6, and falling from acceptable to poor.

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<sup>16</sup> For children three and over, scores on bidirectional communication rose slightly from 104.7 to 105.9. There was almost no difference in the pre- and post-test scores on unidirectional communication: 56.2 to 56.4. On engagement, the score increased from 68.3 to 69.9.

**Table 3: Differences by Age of Child**

Paired Samples t - Test							
Child's Age		Paired Differences	Paired Differences		t	df	Sig. (2-tailed)
			Mean	Std. Dev.			
Over 3	Pair 1	Nurturing - PNurturing	0.17	3.19	0.18	11	0.86
	Pair 2	Engage - PEngage	-1.63	18.00	-0.31	11	0.76
	Pair 3	BiComm - PBiComm	-1.21	38.59	-0.11	11	0.92
	Pair 4	UniComm - PUniComm	-0.21	25.50	-0.03	11	0.98
Under 3	Pair 1	Nurturing - PNurturing	-0.17	3.60	-0.33	45	0.74
	Pair 2	Engage - PEngage	-4.28	13.60	-2.14	45	0.04
	Pair 3	BiComm - PBiComm	-12.15	27.01	-3.05	45	0.00
	Pair 4	UniComm - PUniComm	-7.55	18.94	-2.70	45	0.01

**Differences between Parents and Other Family Caregivers.** There were some differences in the results by type of participant (Table 4: Differences by Relationship to Child). Only nurturing scores for parents showed any significant differences. There were, however, positive trends for parents and caregivers on three of the four factors—engagement, bidirectional and unidirectional communication.

**Table 4: Differences by Relationship to Child**

Paired Samples Test							
Relationship Category		Paired Differences	Paired Differences		t	df	Sig. (2-tailed)
			Mean	Std. Dev.			
Parents	Pair 1	Nurturing - PNurturing	0.21	3.79	0.34	37	0.73
	Pair 2	Engage - PEngage	-3.51	14.50	-1.49	37	0.14
	Pair 3	BiComm - PBiComm	-11.14	29.74	-2.31	37	0.03
	Pair 4	UniComm - PUniComm	-6.61	20.34	-2.00	37	0.05
Caregiver	Pair 1	Nurturing - PNurturing	-0.70	2.85	-1.10	19	0.29
	Pair 2	Engage - PEngage	-4.15	14.83	-1.25	19	0.23
	Pair 3	BiComm - PBiComm	-7.50	30.29	-1.11	19	0.28
	Pair 4	UniComm - PUniComm	-4.95	21.12	-1.05	19	0.31

## **Relationships between Participant Characteristics and Quality**

One of the purposes for including the Caregiver Interview in the CCAT-R is to explore correlations that exist between caregiver characteristics and the quality of care that caregivers offer. The 244 surveys and 169 pre-test observations yielded 82 matches—surveys that could be linked to observations. In the pre-test, child's housing (with parents or with other family caregivers), age, participants' specialized training and work experience in child care were correlated with the factor scores for caregivers and for parents.

The data point to some interesting trends (Table 5: Relationship between Selected Characteristics and Quality). For caregivers, living with the child, Child Development Associate (CDA) training and work in child care centers were negatively related to the language factor scores. There was also a negative relationship between CDA training and work in child care centers and scores on engagement. By contrast, teacher training, child care workshops and participation in parent education programs had positive correlations with nurturing for parents, and parents who were younger had higher scores on this factor.

**Table 5: Relationship between Selected Characteristics and Quality**

Relationship			Nurturing	Engage	BiComm	UniComm
Non-Parent	Does Keiki live with you?	Pearson Correlation	-.082	-.336	-.529(**)	-.501(**)
		Sig. (2-tailed)	.683	.087	.005	.008
		N	27	27	27	27
	Caregiver Age	Pearson Correlation	-.112	.177	.229	.280
		Sig. (2-tailed)	.595	.398	.271	.175
		N	25	25	25	25
Parents	Does Keiki live with you?	Pearson Correlation	.(a)	.(a)	.(a)	.(a)
		Sig. (2-tailed)	.	.	.	.
		N	55	55	55	55
	Caregiver Age	Pearson Correlation	-.362(**)	-.157	-.151	-.165
		Sig. (2-tailed)	.009	.271	.292	.247
		N	51	51	51	51

\* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

a Cannot be computed because at least one of the variables is constant

Relationship			Nurturing	Engage	BiComm	UniComm
Non-Parent	Taken child dev or early childhood courses?	Pearson Correlation	.264	-.178	.045	-.004
		Sig. (2-tailed)	.184	.375	.825	.985
		N	27	27	27	27
	Any other special training in caring for children?	Pearson Correlation	-.012	-.445(*)	-.347	-.349
		Sig. (2-tailed)	.951	.020	.076	.074
		N	27	27	27	27
	CDA Training?	Pearson Correlation	.079	-.508(**)	-.476(*)	-.497(**)
		Sig. (2-tailed)	.695	.007	.012	.008
		N	27	27	27	27
	Teacher Training?	Pearson Correlation	.319	-.283	-.195	-.275
		Sig. (2-tailed)	.104	.152	.329	.165
		N	27	27	27	27
	Childcare Workshops?	Pearson Correlation	.138	-.189	-.105	-.056
		Sig. (2-tailed)	.494	.346	.602	.782
		N	27	27	27	27
	Parent Education Workshops?	Pearson Correlation	.223	-.256	-.211	-.218
		Sig. (2-tailed)	.264	.198	.291	.274
		N	27	27	27	27

	Worked in Child Care Program	Pearson Correlation	.098	-.299	-.334	-.381(*)
		Sig. (2-tailed)	.626	.130	.089	.050
		N	27	27	27	27
	Worked in Head Start Center?	Pearson Correlation	-.019	-.335	-.472(*)	-.371
		Sig. (2-tailed)	.927	.088	.013	.057
		N	27	27	27	27
	Worked in Child Care Center?	Pearson Correlation	.079	-.508(**)	-.476(*)	-.497(**)
		Sig. (2-tailed)	.695	.007	.012	.008
		N	27	27	27	27
Parents	Taken child dev or early childhood courses?	Pearson Correlation	-.007	-.012	.027	-.011
		Sig. (2-tailed)	.959	.932	.849	.936
		N	53	53	53	53
	Any other special training in caring for children?	Pearson Correlation	.219	-.021	.063	.091
		Sig. (2-tailed)	.116	.883	.654	.516
		N	53	53	53	53
	CDA Training?	Pearson Correlation	.217	-.029	.077	.120
		Sig. (2-tailed)	.119	.839	.585	.391
		N	53	53	53	53
	Teacher Training?	Pearson Correlation	.286(*)	.120	.184	.175
		Sig. (2-tailed)	.038	.390	.187	.210
		N	53	53	53	53
Childcare Workshops?	Pearson Correlation	.293(*)	.234	.121	.042	
	Sig. (2-tailed)	.033	.092	.388	.765	
	N	53	53	53	53	
Parent Education Workshops?	Pearson Correlation	.485(**)	.246	.163	.091	
	Sig. (2-tailed)	.000	.076	.244	.516	
	N	53	53	53	53	
Worked in Child Care Program	Pearson Correlation	.106	-.035	.043	.068	
	Sig. (2-tailed)	.452	.804	.758	.628	
	N	53	53	53	53	
Worked in Head Start Center?	Pearson Correlation	.205	.062	.018	.033	
	Sig. (2-tailed)	.141	.657	.900	.813	
	N	53	53	53	53	
Worked in Child Care Center?	Pearson Correlation	.018	-.001	.068	.059	
	Sig. (2-tailed)	.901	.992	.627	.677	
	N	53	53	53	53	

\* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

## CHAPTER 6: DISCUSSION

The findings point to positive results of Tūtū and Me's efforts to improve parents' and other family caregivers' support for their children's school readiness, although the evaluation had limitations--a small sample; the possibility of observer bias; and the possibility of selection bias by participants. During the ten months between the pre-test and the post-test observations, there were statistically significant changes in the two language factors and engagement for parents and for children under three, and there were positive trends for grandparents and other caregivers. The only factor in which there was not much change was nurturing.

To some extent, the differences in the ratings understate Tūtū and Me's effects, because the pre-test ratings were generally high—good for engagement for children in both age groups and acceptable for the two language factors. The change in the nurturing rating for children over three, on the other hand, is more difficult to explain. It may reflect participants' behaviors in a group setting rather than at home, practices related to interacting with older children, or a weakness of the CCAT-R measurement of this factor.

The findings also point to different effects between parents and caregivers. Analysis of the participants' characteristics may explain some of these differences. It is possible that Tūtū and Me may have had less impact on Tūtū than parents, because Tūtū came to the program with more work experience and specialized training in child care. As a result, they may have felt less need to coddle or hover over children, possessing confidence in their own abilities to care for the children as well as the children's ability to be independent. Tūtū may have also used the program time to socialize with one another, and have spent less time interacting with the children. In addition, as older caregivers,

the Tūtū may have been less self-conscious in the presence of the observer and have not been as concerned about interacting with the children.

By contrast, the parents, especially younger parents, may have been more open to learning from the program, because they had considerably less exposure to information about child development, and had worked in informal settings. In addition, the parents had considerably higher levels of education than the caregivers, which may have influenced their receptivity to the program services.

The findings point to some changes that Tūtū and Me might consider. Although the program aims to support grandparents, parents represent a far higher proportion of participants than grandparents, as they do in many Play and Learn programs (Organizational Research Services, 2005). Parents also show the greatest gains. To increase participation of grandparents, Tūtū and Me might explore several strategies. It might consider using Tūtū as ambassadors to publicize the program to their peers; adding special components for Tūtū such as support groups or special Tūtū times; providing transportation, which may be barrier for Tūtū who do not have a car; or offering a home visit for Tūtū who may have mobility challenges and may be reluctant to participate in a group settings. These modifications might also produce greater changes in the quality of their interactions with children.

In addition, Tūtū and Me might want to address the findings related to changes in the quality of the interactions for children three and older. It could consider strengthening the activities for the participants who bring children in this age group, adding greater variety and higher-level play. It could also consider adding a component of home visiting for these children or supplementing the monthly calendar of activities.

The evaluation also has implications for policy makers. The findings indicate that the Tūtū and Me is effective in producing positive changes in practice for supporting children's development with parents who care for very

young children. It seems to have potential for effecting change in grandparents as well if some modifications are made. The evidence from the study, despite its limitations, adds to our understanding of the results that can be achieved with this model. Questions remain, however, about whether models that differ from Tūtū and Me can have similar effects.

We also do not know whether the changes that Tūtū and Me produces in parents' caregiving practices translate into effects on their children's outcomes. The program's child assessment data with the PPVT points to improvements in children's language development and the WSS results show positive changes in cognitive development, but the relationship between effects on parents and effects on children has not yet been examined (Tūtū and Me internal evaluation, 2006). Nor do we know whether Tūtū and Me, or other Play and Learn programs, have different kinds of effects on various types of participants or which components of the program—activities, tip sheets, resources, book bags, play the greatest role in producing results. The answers to these questions can not only add to our knowledge base about family interactions programs that use the "Play and Learn" model, but also to our understanding of the effectiveness of initiatives that aim to serve family, friend and neighbor caregivers.

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