

# **Parental Work Participation and Children's Psychosocial Development in the Philippines**

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## Introduction

Increasingly, in both developed and developing countries, young children are being raised in families where both parents work. This is a consequence of the ever-widening opportunities for women to enter the labor force. The net effect of this situation on childcare and young children's development and well-being, has been the subject of numerous studies.

Understandably, given the traditional maternal role, the majority of studies in this topic focus on the effect of the mother's employment on the child's development. The literature on the effect of maternal employment on the cognitive development of children, for example, has yielded varied results, either negative (Blau and Grossberg, 1990; Vandell and Corasaniti, 1990; Belsky and Eggebeen, 1991; Greenstein, 1995; James-Burdumy, 1999; Neidell, 2000; Waldfogel, Wenjui and Brooks-Gunn, 2002; Ruhm, 2000, 2004), positive (Vandell and Ramanan, 1992; Muller, 1995), or no significant effect (Leibowitz, 1977; Desai et al., 1989; Blau and Grossberg, 1992; Parcel and Menaghan, 1994 ). Sam Preston, in an address to the Population Association of America in 1984, pointed out that there had been no sufficient proof that mothers' entry into the labor force had a detrimental effect on the well-being of their children.

As the majority of studies in this area have come from developed countries where most women are typically employed in the formal sector, it has become important to also study the relationship between parental work and child development in developing countries where the occupational settings and experiences may not be of the same quality or even of same range as those found in the developed countries. Several studies in the Philippines have already pointed out the possible benefits of maternal employment, both for the financial stability of the household (e.g., King and Evenson, 1983; Echavez, 1996; Borja et al., 1997) and also for the women's physical well-being (Bisgrove and Popkin, 1996), benefits that may possibly be carried over to the children. Studies from the Philippines is especially important since it is a country where the mother traditionally plays the primary caregiver and being in a primarily Catholic country, she is culturally expected to see to her children's well-being.

A previous study by Agustin and Gultiano (2007) using the Philippines Longitudinal ECD Evaluation Survey found that mother's work participation is positively associated with non-verbal intelligence among boys aged 5-6, even after controlling for relevant covariates. In addition to labor force participation, other characteristics of the mother such as having a higher education and having less children are associated with greater non-verbal intelligence among children. Intervention (daycare), on the other hand, helps mitigate the ill effects of negative maternal characteristics on children.

This paper extends the earlier study by analyzing intact family units (families with both mother and father) and assessing how the labor force participation of either parent,

or both parents, is related to the child's overall psychosocial development, in the presence of important covariates.

## Data and Methods

This study uses data from a longitudinal evaluation of the Early Childhood Development (ECD) intervention, part of the larger Baseline Indicators Study of the Early Childhood Development Project, initiated by the Philippine government.. The goal of the ECD Project was to improve the survival and developmental potential of at-risk children in predominantly rural regions of the country (OPS 2002). Rather than changing existing programs, it provided technical and financial support to the local government units (LGUs) with the intent of enabling them to deliver more and improved services for pregnant mothers and children. Communities included in the study were identified as either "at risk" or "in need" of additional services, as indicated by high rates of infant mortality, childhood wasting, and a high elementary school drop out rate. At baseline, the study enrolled 7,925 children aged 0-4 years. Follow-ups were conducted at yearly intervals with a total of 4 surveys completed by the end of the study in 2005. During the Year 4 survey, members of the baseline cohort ranged in age from 4 to 9 years, totaling 6,871. Attrition was due mainly to migration (9.3%), deaths (0.4%), refusals and others (2.2%) (OPS 2005, Armezin et al 2006).

For the present analyses, we limit our sample to some 6,000 children who were 4-9 years of age at Year 4 of psychosocial assessment and have been followed since baseline and both of the parents are present at home. In addition, children with physical and neurological abnormalities that could influence test performance, such as esotropia, autism or cerebral palsy (57 or 2.1%), and those with incomplete data (32 or 1.2%), were also excluded from analysis.

The dependent variable of the study is the child's psychosocial development, which was assessed using the Philippines Revised Early Childhood Development Checklist (REC) in which the skills listed were developmentally sequenced by age. Overall psychosocial development was defined as a composite of seven underlying domains: gross motor, fine motor, self-help, receptive language, expressive language, cognitive, and socio-emotional. The composite score for all these domains was reported as a standard score ranging from 35-150 with a standard deviation of 15 (OPS 2005). Before analysis, each domain score and the composite psychosocial development scores were converted into age-specific norms based upon a reference population composed of 10,915 Filipino children aged 0 –6 years old drawn from six regions in the Philippines: Central Luzon (Region 3), Central Philippines (Regions 6,7 & 8) and Central Mindanao (Region 12). We used as outcome variables the standardized scores for the overall psychosocial development and for selected domains, in particular the gross motor, self help, expressive language, and cognitive domains.

As main exposure variables for the study, we analyzed three indicators of parental employment at baseline: 1) Parental employment of both parents (categorized as both working, only one parent working, and both not working), 2) Type of maternal employment (whether not working, working at home, or working away from home), and 3) Paternal employment (whether working or not).

Other relevant variables controlled for in the multivariate analysis are: household assets at baseline, stunting at baseline, attendance in daycare, sex of child, and mother's education. All analyses are stratified by age, which has been categorized into: ages 4-5 (representing pre-elementary school ages), ages 6-7 (representing approximate ages at entry to elementary school), and ages 8-9 (representing ages within elementary schooling, which is compulsory in the Philippines).

### Statistical analyses

Bivariate analysis was performed using simple descriptive statistics. The relationship between parental work participation and psychosocial development was considered after adjusting for socioeconomic, health and other relevant factors using linear regression, computed by STATA (v.10). The result of the multivariate analysis is presented in Tables 1 to 3.

### Results

In general, the results find weak relationship between parental work and psychosocial development. The only possible negative effect of both parents working may be on the gross motor development of children aged 6-7 years old. It is found that those children with both parents not working when they were about 2-3 years old have better gross development four years later than those children with both parents working at baseline. As for the type of maternal employment, it is found to have some effect on the psychosocial development at every age group of the children under study. Working away from home is found to have a relatively negative effect (compared to not working) on the overall psychosocial development of children in the youngest and oldest age groups. It also has negative effects on the gross motor development of children in the youngest age group, on the self-help development of children in the middle age group, and on the expressive language and cognitive development of children in the oldest age group. It is observed to have a positive influence, however, on the gross motor development of children in the middle age group.

Further work for this study would be testing for other correlates or confounding factors.

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Table 1. Regression coefficients showing the relationship between parental employment and psychosocial development indicators of children aged 4-5 years during the latest survey (2005)

	Overall	Gross Motor	Self-Help	Expressive Language	Cognitive
<b>Parental employment</b>					
No parent working (vs. both parents working)	1.755	0.436	-0.140	0.089	1.129
One parent working (vs. both parents not working)	0.392	0.067	0.022	-0.033	0.176
Assets score	0.604***	-0.024	-0.000	0.061**	0.185***
Child stunted	-3.473***	-0.528***	-0.300	-0.127	-1.045***
Child ever attended daycare	3.259***	-0.162*	0.620***	0.083	0.308*
Child is male	-1.260*	0.071	-0.206	0.147	-0.311*
No. of years education of mother	0.464***	0.029*	-0.046*	0.025	0.151***
N	2,034	2,056	2,057	2,058	2,047
R <sup>2</sup>	0.09	0.03	0.01	0.01	0.14
<b>Maternal employment</b>					
Mom worked at home (vs. mom did not work)	0.561	0.044	-0.163	0.320*	-0.109
Mom worked away from home (vs. mom did not work)	-1.357*	-0.377***	-0.047	-0.062	-0.249
Assets score	0.604***	-0.008	0.004	0.054**	0.188***
Child stunted	-3.223***	-0.471***	-0.251	-0.136	-1.059***
Child ever attended daycare	3.335***	-0.148*	0.601***	0.099	0.358**
Child is male	-1.237*	0.073	-0.194	0.098	-0.265*
No. of years education of mother	0.481***	0.028*	-0.040	0.028*	0.148***
N	2,238	2,260	2,261	2,262	2,251
R <sup>2</sup>	0.09	0.03	0.01	0.02	0.14

Table 2. Regression coefficients showing the relationship between parental employment and psychosocial development indicators of children aged 6-7 years during the latest survey (2005)

	Overall	Gross Motor	Self-Help	Expressive Language	Cognitive
<b>Parental employment</b>					
No parent working (vs. both parents working)	-1.239	0.947*	-0.807	-0.179	-0.468
One parent working (vs. both parents not working)	0.164	0.042	0.061	-0.118	-0.089
Assets score	0.116	-0.011	-0.028	0.024	0.065**
Child stunted	-2.032***	-0.037	-0.285**	-0.049	-0.480***
Child ever attended daycare	1.096*	0.634***	0.111	-0.156	-0.179*
Child is male	-2.858***	-0.026	-0.360**	-0.174*	-0.602***
No. of years education of mother	0.428***	0.028*	-0.027	0.021	0.132***
N	2,389	2,407	2,408	2,409	2,397
R <sup>2</sup>	0.06	0.04	0.01	0.01	0.11
<b>Maternal employment</b>					
Mom worked at home (vs. mom did not work)	-0.289	0.211*	-0.444**	0.114	0.112
Mom worked away from home (vs. mom did not work)	0.118	0.004	0.011	0.095	-0.000
Assets score	0.122	-0.003	-0.023	0.005	0.067**
Child stunted	-1.867***	-0.048	-0.223*	-0.002	-0.535***
Child ever attended daycare	0.921*	0.658***	0.062	-0.187*	-0.234**
Child is male	-2.796***	0.008	-0.353***	-0.159*	-0.607***
No. of years education of mother	0.453***	0.026**	-0.027	0.039**	0.124***
Constant	107.63***	10.780***	10.837***	10.270***	11.532***
N	2,665	2,685	2,686	2,687	2,673
R <sup>2</sup>	0.06	0.04	0.01	0.01	0.12

Regression coefficients showing the relationship between parental employment and psychosocial development indicators of children aged 8-9 years during the latest survey (2005)

	Overall	Gross Motor	Self-Help	Expressive Language	Cognitive
<b>Parental employment</b>					
No parent working (vs. both parents working)	4.495	--	1.032	0.320	0.013
One parent working (vs. both parents not working)	0.680	--	0.075	0.038	0.095
Assets score	0.078	--	-0.015	0.028	0.028
Child stunted	-0.469	--	-0.085	-0.000	-0.210**
Child ever attended daycare	-2.336**	--	0.108	-0.124	-1.140***
Child is male	-0.766	--	-0.010	0.043	-0.271***
No. of years education of mother	0.131*	--	-0.023	0.007	0.061***
N	1,493	1,500	1,501	1,501	1,499
R <sup>2</sup>	0.02	--	0.00	0.00	0.12
<b>Maternal employment</b>					
Mom worked at home (vs. mom did not work)	-0.198	--	0.020	-0.029	-0.027
Mom worked away from home (vs. mom did not work)	-0.939*	--	-0.044	-.181*	-0.207**
Assets score	0.029	--	-0.041	0.013	0.032*
Child stunted	-0.356	--	-0.101	0.046	-0.196**
Child ever attended daycare	-2.496***	--	0.129	-0.187	-1.208***
Child is male	-0.750*	--	-0.001	0.049	-0.291***
No. of years education of mother	0.138*	--	-0.020	0.014	0.058***
Constant	112.354***	10	11.225***	10.608***	13.152***
N	1,736	1,743	1,744	1,744	1,742
R <sup>2</sup>	0.02	--	0.01	0.01	0.13