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Does Maternal Employment Influence Child Care and Morbidity? Evidence from Poor Populations**

Introduction

IN many developing countries, women's activities, traditionally confined to the household, have changed over time. With an increase in the labour force participation, the dual role of women in developing countries, both as income earner and family care provider, has emerged as an important factor. Since mother is the primary care provider for children, increasing women's participation in economic activities outside home may reflect on family and especially on child. However, the relationship between the employment of mother and the health and well being of her children is not straightforward. In part, this is because the attitude towards women's work, the nature of work and the condition under which the work is performed vary greatly both among and within societies.

Generally, a mother's activity status has been regarded as a proxy for maternal time allotted to child rearing. Those women who participate in the labour market are believed to spend less time in maternal activities than those who do not participate at all, and those who are engaged in market activities at home are thought to be at an intermediate position.

Empirical evidence on the association between maternal work participation and child survival is available from large scale surveys. Hobcraft *et al. (*1984), analysing the World Fertility Survey from 28 countries, found that in many of these mother's work participation was associated with higher child mortality. It was initially held that this was partly

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because working women in many developing countries were generally less educated and belonged to lower socio-economic strata. However, even after the other socio-economic factors were controlled, the net effect of work participation on child survival was found to be negative. A cross-national comparative study showed that in 10 of 14 countries, women who do not participate in economic activities or who work within their family enterprise have the lowest level of child mortality (UN, 1985). Also in Sudan, Farah and Preston (1982) found that mother's participation in the labour force raised child mortality by 27 per cent in the capital (Khartoum) and 10 per cent for the country as a whole.

Research in India also suggests that women's employment is disadvantageous to child health. A survey in Kerala by Zachariah *et al.* (1994) found that labour force participation of women has a negative influence on child survival. It was also found from a small survey among poor population in Delhi and another in a village in Tamil Nadu, that children of working women are at significantly greater risk of health even when socio-economic factors were controlled (Basu and Basu, 1991; Sivakami, 1997). Desai and Jain (1994) found that in rural Kamataka, children of working women receive poor nutrition and are less immunised than children of non-working women. Data from the National Family Health Survey (NFHS), which covered large samples in most states, showed that mothers employment away from home has significant negative effect on infant survival in urban area of Southern India (Kishor and Parasuraman, 1998). Zachariah *et al.* (1994) suggested that the negative effect is because of the working women could have shorter duration of breast-feeding and lesser amount of time with child.

On the other hand. in Goa. Rao and Pandey (1993-94) found that the observed association between maternal employment on child survival is attributable to other variables and the net effect turned out to be insignificant when other variables were controlled. Similar results were obtained in Orissa by Nanda and Sureender (1997).

It is acceptable that participation in the labour force could conceivably have a negative effect on child health via a reduction in mother's time spent on child care. At the same time. there are also reasons to expect women's participation in the labour force to have beneficial effect on child survival. Women's labour force participation is expected to have positive effect since a higher proportion of the earnings of mother, compared with earnings of father, will be directed towards child health needs. In addition, women's employment may translate into greater control of the woman over expending of resources, increased exposure, access to relevant information about childbearing and child rearing practices, and an enhanced ability to manipulate and engage the world outside the home to better meet the nutritive, medical, and survival needs of infants.

Since it was recognised that working women are generally from lower socio-economic strata, who were under pressure to work for meeting essential needs for survival, the negative association with child health could be on account of poverty.

However, analyses of survey data that controlled for income, education and other socio-economic variables found a net effect of work participation persists. In many developing countries, a large proportion of working women live in localities with poor hygienic conditions. Individual level factors such as income and education may not be able to capture the effect of such environments on child health. Hence, a mere statistical control for socio-economic factors may not be adequate. There is a need to look at the effect of work participation within a context or within a homogeneous population. The issue of child health is crucial especially among the poor. Hence, this paper examines the relationship between work status of woman and child health within poor localities in urban and rural areas.

Methodology

Conceptually, the work status of woman can affect child health because a working woman has less time to devote to child care. Therefore, it is necessary to examine how working and non-working women spend time on child care. In order to answer the research questions raised here, data on mothers time input on child care, other care providers, various aspects of child health and household socio-economic background of working and non-working women are required. The nature of work and availability of child care providers could vary in rural and urban areas. As mentioned earlier, since there is a need to concentrate on a homogeneous population, this study focused only on poor sections of the population in both urban and rural areas. For this purpose, slums in urban area and scheduled caste population in rural area were chosen. The study is restricted to Coimbatore City and rural areas in the district.

In Coimbatore City out of the 59 municipal wards, two wards with high female work participation and low literacy were identified. In the absence of ward-level data on incomes, wards with low literacy were presumed to have a large proportion of poor population. All the slums in each of the two wards were visited, and information on female labour force participation was obtained. From each ward. one slum, with the highest level of female participation in the labour force was selected. For the rural sample, one taluk (Palladam) from Coimbatore district was chosen which is closer to the district rural population in terms of average female literacy, average scheduled caste (SC) population and average female labour force participation. In Palladam taluk, five villages, which have female work participation, female literacy closer to the district average and SC population of at least 500 persons, were first chosen. Of these, two villages had power loom industry, appeared to be more urban in character, and hence were not included in the study. The SC settlements in the other three villages were covered.

A preliminary listing of households in the slums as well as in the villages was carried out. Currently married women in the age group 15-49 who had at least one live birth were systematically selected in the survey. There were 529 such women, 285 in the urban

slums and 244 in the rural settlements. Women who were normally engaged in economic activity during the previous year were identified as working women. A schedule was designed to obtain information on household activities, fertility histories, time input on work and child care activities, other care providers, awareness and autonomy of women, and health for children below the age of 10 years. Given the smallness of the sample, it was felt that examination of child mortality differentials would not be possible. Hence, child health is assessed in terms of morbidity. The survey was carried out during August 1998 to January 1999.

Setting

Coimbatore is a major industrial city in Tamil Nadu, dominated by the textile and hosiery industries and is called the Manchester of South India, but there are also many engineering units and foundries. The city has a large number of poor localities or slums. A majority of the people in slums belong to scheduled castes and few others belong to other backward communities. The overall condition of the slum is very poor. They live in small single room tenements. The sample villages are situated about 30 kilometres from the Coimbatore City. The overall condition of the scheduled caste settlements in the villages is also poor. Very few have pucca bath room in both rural and urban areas. Kutcha bathrooms made up of coconut leaves and jute bags are very common. But there is absolutely no toilet facility either private or common in slums whereas in rural areas only a few have a toilet. Drainage is very poor in all the settlements selected. Two of three villages have a primary health centre (PHC) and the other village is served by the PHC in a neighbouring village. Midwives usually visit the slums regularly and Village Health Nurses (VHN) provide health care to the rural settlements.

Profile of the Sample

Of the 529 currently married women in the sample, 267 (141 from urban area and 126 from rural area) were working and 262 (144 from urban area and 118 from rural area) were non-working. A comparative view of the demographic and socio-economic characteristics of the two areas is presented in Table 1. It can be seen that the non-working women are younger than the working women on an average in both rural and urban areas. The mean age at marriage of non-working women as well as their husbands is slightly higher than that of working women and their husbands. The mean number of pregnancies, mean number of live births, mean number of living children are higher among working women. In both rural and urban areas, the level of literacy is higher among non-working women compared to working women; overall it is quite low in rural areas as compared to urban areas. Working women have higher household incomes than non-working women in both the areas, but the gap is wider in the villages (among

TABLE 1: DEMOGRAPHIC AND SOCIO-ECONOMIC CHARACTERISTICS OF THE SAMPLE POPULATION

Characteristics	*URBAN*		*RURAL*	
	Working	*Non-working*	*Workin*	*Non-working*
Age of the Respondents	(Percentage Distribution)			
Less than 25	9.2	23.6	13.5	56.8
25-29	29.1	38.9	33.3	30.5
30-34	31.2	13.2	20.6	5.9
35+	30.5	24.3	32.5	6.8
Total	100.0	100.0	100.0	100.0
Mean age of the Respondent (Yrs.)	31.5	29.2	30.7	24.8
Mean age of the Husband (Yrs.)	37.4	35.3	36.1	29.8
Mean age of the: Respondent (Yrs.)	17.7	18.6	16.1	17.2
Husband (Yrs.)	23.6	24.7	21.5	22.1
Mean no. of Pregnancies	3.1	2.5	3.0	2.4
Mean no. of live births	2.6	2.2	2.7	2.2
Mean no. of living Children	2.3	2.0	2.4	1.9
Percent of Respondents literate	55.3	75.0	15.9	34.7
Percent of Husbands literate	70.2	84.0	30.2	53.4
Mean annual household income (Rs.)	26898	24227	26898	21122
Percent residing in pucca house	41.8	50.7	40.5	40.7
Percent having separate kitchen	16.3	28.5	32.5	30.5
Total No. of women	**141**	**144**	**126**	**118**

working women, the annual household income includes their own income also). Per cent residing in pucca house is slightly higher among urban non-working women as compared to working women, whereas in rural area the percentage is the same for both working and non-working women. Overall, working women are slightly older, have more children and higher incomes, but are less literate and in urban areas, have poorer living conditions, as compared to non-working women.

Nature of Work by Women

In the urban slums, the main economic activity for the women is construction and a sizeable proportion were engaged as domestic servants. The work is outside the slums but mostly at a nearby place in the city. In the rural area. the main economic activity for women is agriculture and related activity. The work is often seasonal and is outside the home though mostly in the same village or in a neighbouring village. In both rural and urban areas, the working hours are generally from 6-7 in the morning to about 2-3 in the afternoon with a break for breakfast. The wages are Rs. 30 to 40 per day.

In the urban slum, women are engaged in construction work and usually their husbands are also engaged in construction work in the same place but not necessarily

all the time. In the rural area, whereas women do jobs like sowing seeds, harvesting, weeding and transplanting, men do the ploughing and digging. Since it is casual and seasonal work, women stay at home especially during the off-seasonal period in the rural areas. The working women, of course, also take care of their household activities such as cooking, cleaning, child care, bringing water etc. Most of the working women in both rural and urban areas leave their children at home to be cared for by the neighbours or elder siblings. However, when a child is ill. many women forgo work to attend to the child.

Results

Time Spent on Child Care

The data on time input were obtained from all the women who had at least one living child below the age of 10 years. There were 391 such women in the study (89 urban working, 111 urban non-working, 84 rural working, and 107 rural non-working women). The question was *"How much time do you spend approximately in a day to take care of your children?"* Note that this time is recorded for all children, not separately for each child, since it is difficult to separate the activities of mother by child. Child care includes bathing, feeding, preparation of special food for children, teaching, dressing up and playing with children.

In general, women having very young children spend more time as compared to women with older children (Table 2). As expected, both in rural as well as in urban areas women with a child below five years spent more time on child care than women with older children. The survey showed that working women spent on an average 3 hours

TABLE 2: TIME SPENT ON CHILD CARE IN MEAN HOURS PER DAY

	URBAN		*RURAL*	
	Working	*Non-working*	*Working*	*Non-working*
Women with at least one Child	1.80	4.65	1.52	4.43
below 10 years of age	(1.17)	(1.88)	(1.08)	(1.73)
Number of women	**89**	**111**	**84**	**107**
Women with at least one Child	2.19	5.08	1.85	4.59
below Five years of age	(1.24)	(1.84)	(1.14)	(1.64)
Number of women	**37**	**79**	**34**	**101**
Women with no child below	1.53	3.58	1.29	1.75
years of age but at Least	(1.05)	(1.52)	(0.99)	(0.76)
one below 10 years				
Number of women	**52**	**32**	**50**	**6**

Note: Figures in parentheses are standard deviation in the respective cell.

less than the non-working women on child care in both rural and urban areas among women who had at least one child below five years of age.

Among women who had no child in the age group of 0-4 (but at least one below 10 years), non-working women spent on an average 2 hours more than the working women in urban area. This difference was small among rural women (rural non-working women spent about only half an hour more than working women).

Differentials in Child Morbidity

Information on child morbidity is collected from the currently married women who had at least one child below the age of 10. It should be noted that, for some women there were two or three children below the age of 10 and information is obtained separately for each child. Thus the unit of analysis is *child* and not *woman*. Morbidity is measured in terms of the percent of children who experienced an illness at least once during a period of two weeks prior to interview. Information on the reported illness was also recorded, Cold/Cough and fever were the most commonly reported illnesses. It must be noted that 'fever' could be caused by a number of possible infections but in lay reporting it is difficult to identify the specific infection and hence 'fever' as reported is treated as an illness. Diarrhoea was another illness reported. The proportion of children experiencing diseases like jaundice, chicken pox, and mumps during the reference period was negligible in the sample population. Hence, the results are presented only for 'any illness', 'fever', 'cold/cough', and 'diarrhoea'.

Differentials in morbidity by work status of the mother are given in Table 3. The morbidity rates are computed separately for children in the age groups of 0-4 and 5-9. It is seen that among children below five years of age, proportion having any illness, and specific illnesses such as fever, cold/cough, and diarrhoea during the two weeks prior to interview age does not differ much by work status of the mother in both the urban and the rural areas. In the older age group (5-9 years) proportion having any illness, fever, and cold/cough is higher for children of working women in both the urban and the rural areas, the difference in the urban area is relatively large. The percentage of children who experienced diarrhoea is very small in the older age group in both the rural and the urban areas.

Regression Results

In the previous section, differences between working and non-working mother's time spent on children and morbidity were examined. In most cases, the gross differences, that is without any control for background variables, were examined. However, some of these variables are likely to be interrelated. What is the effect of an individual factor when other variables are controlled? In order to answer this question, a 'multiple

TABLE 3: DIFFERENTIALS IN CHILD MORBIDITY BY WORK STATUS OF THE MOTHER
(Percent who experienced the illness during the reference period)

	URBAN		*RURAL*	
	Working	*Non-working*	*Working*	*Non-working*
Children below five years of age				
Any illness during last two	51.9	52.8	47.8	55.7
Fever during last two weeks	23.1	30.2	23.9	20.8
Cold/Cough during last two	28.8	33.0	37.0	43.6
Diarrhoea during last two weeks	7.7	0.9	0.0	6.7
Number of children	**52**	**106**	**46**	**149**
Children in the age group of 5-9				
Any illness during last two	55.4	26.8	44.0	30.8
Fever during last two weeks	34.7	13.4	31.0	10.3
Cold/Cough during last two	24.8	13.4	26.0	20.5
Diarrhoea during last two weeks	5.0	0.0	2.0	0.0
Number of children	**101**	**82**	**100**	**39**

regression approach has been adopted to see the extent to which the work status of the mother influences child care and child health in terms of morbidity.

Time Spent on Child Care

The individual woman having at least one child below the age of 10 years is the unit of analysis and time spent on child care is used as the dependent variable. Ordinary least square linear regression is adopted to quantify the net effect of time spent on child care by the women. In addition to work status of the mother, education of the mother, annual household income (log) are used as explanatory variables. Besides, the presence of grandmother in the household and total number of living children are also included as explanatory variables, since the mother's time input is likely to be influenced by the presence of grandmother (see Table 4 for a list of variables).

The regression results show that 'in both rural and urban areas, work status of the mother has a highly significant effect on child care in the age group of 0-9 years (Table 5). In rural area, none of the other variables (education, income, presence of grandmother, and total number of living children) showed any significant effect on time on child care whereas in urban area, education of the mother has moderately positive effect and annual income of the household showed significant negative effect. Working women spend on an average 2.5 to 3 hours less than non-working women on child care in both rural and urban areas.

As mentioned earlier, time spent on child care would depend on the age of the children. Women with young children are expected to spend more time on child care. To see this, the regression was rerun separately for women with at least one child in

TABLE 4: VARIABLES USED IN REGRESSION ANALYSIS

Variable	*Description*	*Mean of the variable for*			
		UW	*UNW*	*RW*	*RNW*
Variables used in time spent on child care					
Education of the Mother	In completed Years of schooling	3.57	5.62	1.13	2.07
Annual household Income	Log value in Rupees	10.08	9.93	10.04	9.78
Presence of Grandmother In the Household	Yes = 1; No=0	0.16	0.19	0.17	0.17
Total number of Children	Actual number	2.20	1.90	2.37	1.93
Time spent on Child Care	In hours per day	1.80	4.65	1.52	4.43
Number of women		89	111	84	107
Variables used in child	**morbidity analysis**				
Education of the Mother	In completed years of schooling	3.81	5.56	1.14	2.10
Annual household Income	Log value in rupees	10.10	9.92	10.04	9.75
Sex of the child	Male = 0; Female = 1	0.50	0.43	0.54	0.48
Age of the mother	Age in completed Years	28.82	26.81	27.85	24.36
Presence of siblings In the age of 6-18 In the Household	Actual number	0.92	0.62	1.08	0.43
Any illness during Last two weeks	Yes = 1; No =0	0.54	0.41	0.45	0.51
Fever during last Two weeks	Yes = 1; No =0	0.31	0.23	0.29	0.19
Cold/Cough during Last two weeks	Yes = 1; No °0	0.26	0.24	0.29	0.39
Diarrhoea during Last two weeks	Yes = 1; No = 0	0.06	0.01	0.01	0.05
Number of children	**153**	**188**	**146**	**188**	

UW - Urban working women RW - Rural working women
UNW - Urban non-working women RNW - Rural non-working women

the age group of below five years of age and for women with no child below five years of age. but at least one in 5-9 years of age. The results of regression for women with a child below five are given in the middle panel of Table 5. In both rural and urban areas, only the work status variable showed significantly negative effect on child care. None of the other variables showed any significant effect.

TABLE 5: REGRESSION RESULTS FOR MOTHER'S TIME SPENT ON CHILD CARE

Explanatory variable	*Women with at least one child in the age group of 0-9*		*Women with at least one child in the age group of 0-4*		*Women with no child in the age group of 0-4, but at least one in 5-9*	
	Urban	*Rural*	*Urban*	*Rural*	*Urban*	*Rural*
Work status of the	-2.5441***	-2.8313***	-2.7538 ***	-2.7808***	-1.8949***	-0.3989
Mother	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.3654)
Education of the	0.6011**	0.0886	0.6125	0.0595	0.3962	-0.0397
Mother	(0.0208)	(0.7165)	(0.1122)	(0.8356)	(0.1729)	(0.9095)
Annual household	-0.8171***	-0.2627	-0.5304	-0.1134	-0.7632**	0.2755
Income (log)	10.0023)	(0.3449)	(0.1397)	(0.7285)	(0.0323)	(0.5821)
Presence of Grand	0.1112	0.3827	0.0221	0.1593	-0.2139	0.6305
Mother in the	(0.7152)	(0.2168)	(0.9561)	(0.6735)	(0.6180)	(0.1206)
Household						
Total no. of living	-0.1478	-0.0082	0.1300	0.1481	-0.3760**	0.0126
Children	(0.2916)	(0.9404)	(0.5057)	(0.3381)	(0.0306)	(0.9208)
Constant	12.5372	6.9233	9.5901	5.3785	11.7658	-1.1618
R^2	0.4780	0.4963	0.4220	0.3861	0.4778	0.0804
Number of women	200	191	116	135	84	56

Note: Figures in the parentheses are 'p' values.

Level of Significance: *** $p < 0.01$. ** $p < 0.05$. * $p < 0.10$.

The results of regression for women with no child below five years, but at least one in 5-9. are given in the right hand panel of Table 5. None of the variables including work status of the mother showed any significant effect on child care in rural area whereas in urban area working women spend 1.9 hours less on child care as compared to the non-working women. Income and the total number of children also showed moderately significant effect in the urban area.

Child Morbidity

In this analysis, child below the age of 10 years is the unit of analysis and morbidity rates such as any illness, specific illness such as fever, cold/cough, and diarrhoea, during last two weeks are used as the dependent variables. The analyses are carried out separately for children in the age group of 0-4 and in the group of 5-9. Since all of these dependent variables are dichotomous in nature, logit regression has been adopted to quantify the net effect. Throughout the analysis education of the mother, sex of the child, age of the mother, annual household income (log), number of siblings of age 6-18 in the household, aroused as explanatory variables in addition to work status of the mother.

Logit regression results for any illness during the two week period prior to interview among younger and older children are given in the Table 6. From the table it can be

TABLE 6: LOGIT REGRESSION RESULTS FOR ANY ILLNESS DURING LAST TWO WEEKS

Explanatory variable	*Children group in the age of 0-4*		*Children group in the age of 5-9*	
	Urban	*Rural*	*Urban*	*Rural*
Work status of the Mother	-0.0407	-0.1070	0.8316***	0.3554
	(0.8252)	(0.5661)	(0.0000)	(0.1215)
Education of the Mother	0.0757	-0.1460	0.5440***	-0.0123
	(0.7079)	(0.3570)	(0.0048)	(0.9568)
Sex of the child	-0.0287	-0.1003	-0.1348 (0.4103)	-0.1461
	(0.8599)	(0.4921)		(0.4264)
Age of the Mother	0.0003	-0.0384	-0.1052**	0.1642***
	(0.9951)	(0.4302)	(0.0442)	(0.0056)
Annual household Income	-0.1259	-0.1241	-0.1926 (0.6286)	-0.7938
	(0.7204)	(0.7274)		(0.1615)
Presence of siblings in the	0.3724	0.0571	0.1721 (0.4320)	-0.5193*
age of 6-18 years	(0.1399)	(0.7734)		(0.0620)
Constant	1.1025	2.2399	4.1951	3.2136
-2 Log Likelihood	215.74	265.85	222.23	173.77
Number of children	158	195	183	139

Note: Figures **in** the parentheses are 'p' values.

Level of Significance: *** $p < 0.01$. ** $p < 0.05$. * $p < 0.10$.

seen that both in rural and urban areas work status of the mother does not show any significant effect on morbidity for children below five years of age. None of the other variables showed any significant effect.

On the other hand, among the older children, working women's children are at a disadvantage but only in urban area. Education of the mother showed significant positive effect in urban area: self-reporting of morbidity tends to be higher among the more educated, as is well known (Murray and Chen, 1994). Children of older women experienced higher risk of any illness in the rural areas, but lower in the urban area. Presence of siblings in the household showed negative effect on any illness in rural area only, possibly because the elder sibling may take care of the children during mother's absence or otherwise assist mother. None of the other variables such as work status, education, income, and sex of the child showed any significant effect in rural area among the older children.

Among the younger children (age 0-4), the incidence of fever is not influenced by work status in both the rural and the urban areas (Table 7). On the other hand in the older age group, the incidence of fever was significantly greater among working

TABLE 7: LOGIT REGRESSION RESULTS FOR FEVER DURING LAST TWO WEEKS

Explanatory variable	*Children group in the age of 0-4*		*Children group in the age of 5-9*	
	Urban	*Rural*	*Urban*	*Rural*
Work status of the Mother	-0.3309	0.0005	0.7470***	0.9768***
	(0.1448)	(0.9982)	(0.0004)	(0.0058)
Education of the Mother	0.2671	0.3002	0.3204	0.1698
	(0.2790)	(0.1132)	(0.1189)	(0.5105)
Sex of the child	-0.1157	-0.0834	-0.1333	0.1382
	(0.5351)	(0.6386)	(0.4615)	(0.5148)
Age of the Mother	0.0870*	0.0720	-0.0953	0.1181*
	(0.0803)	(0.2056)	(0.1074)	(0.0668)
Annual household Income	-0.0629	0.3713	-0.2662	-
(log)	(0.8722)	(0.3731)	(0.5601)	1.9948***
Presence of siblings in the	0.4267	0.0072	0.2446	(0.0096)
age of 6-18 years	(0.1113)	(0.9753)	(0.3147)	-0.3066
				(0.3128)
Constant	-3.1625	-6.6382	3.7839	15.1507
-2 Log Likelihood	175.97	198.35	189.58	138.50
Number of children	**158**	**195**	**183**	**139**

Note: Figures in the parentheses are *'p'* values.

Level of Significance: *** $p < 0.01$. ** $p < 0.05$. * $p < 0.10$.

women's children than among non-working women's children in both the urban and the rural areas. This is also true of the incidence of cold/cough (Table 8). That is, work participation of mother does not influence the incidence of cold/cough for children in the younger age group, but it seems to have an adverse effect among the older children only in urban areas. Children of working women have a moderately higher risk of diarrhoea as compared to children of non-working women in the urban areas (Table 9). But in rural areas, work status does not have a significant effect on the incidence of diarrhoea. Since the percentage of children who experienced diarrhoea was extremely small among children in the older age group, the effect of work status is not analysed for this group. A few other variables such as age of the mother (positive) and annual household income (negative) showed significant effect on the incidence of fever.

By and large, morbidity among very young children is not influenced by work status of mother when controlling for other socio-economic variables. These results are quite similar to those obtained in gross differentials. However, among the older children (5-9). working women's children are at a disadvantage, the effect is large and significant especially in urban areas.

TABLE 8: LOGIT REGRESSION RESULTS FOR COLD/COUGH DURING LAST TWO WEEKS

Explanatory variable	*Children group in the age of 0-4*		*Children group in the age of 5-9*	
	Urban	*Rural*	*Urban*	*Rural*
Work status of the Mother	-0.0921	-0.0612	0.4105*'1'	0.2633
	(0.6507)	(0.7493)	(0.0543)	(0.3181)
Education of the Mother	0.2154	0.0248	0.0376	0.2044
	(0.3464)	(0.8760)	(0.8617)	(0.3901)
Sex of the child	-0.1782	0.0709	-0.1610	0.1032
	(0.3134)	(0.6307)	(0.4080)	(0.6116)
Age of the Mother	0.0770	-0.0434	-0.0542	0;0723
	(0.1053)	(0.3875)	(0.3797)	(0.2248)
Annual household Income	-0.2616	-0.1035	0.6437	-0.8217
(log)	(0.4880)	(0.7740)	(0.1953)	(0.1978)
Presence of siblings in the	-0.2270	-0.1232	-0.2029	-0.2663
age of 6-18 years	(0.4009)	(0.5559)	(0.4503)	(0.3593)
Constant-	0.2535	1.7760	-6.2673	5.2337
-2 Log Likelihood	191.97	262.28	173.26	150.13
Number of children	**158**	**195**	**183**	**139**

Note: Figures in the parentheses are 'P' values.
Level of Significance: *** $p < 0.01$. ** $p < 0.05$. *$p < 0.10$.

Certain limitations of the present study should also be noted here. It is recognised that there is some seasonality in the incidence of particular diseases. Though the survey was spread over a five-month period, in any particular locality, both working and non-working women were covered within a short time span. Hence, though the timing of survey may influence the level of morbidity, it is not likely to influence the effect of work status on it. Second, the sample size and coverage are small. We must see whether a large study yields similar results. The study is restricted to only poor populations. We should also see whether surveys of women from middle and upper classes yield similar results. However, the available results do have certain implication for the study of the relationship between maternal employment and child health. These are discussed below.

Implications of the Results

The results of the study show that the effect of work status seems to differ by age of child. For children below the age of five years, effect of work status is very high on mother's time but insignificant on morbidity. On the other hand. for older children the effect on time input is moderate yet on morbidity significant. Moreover, the picture is different for rural children than urban children in that, the effect of work status is clearer

TABLE 9: LOGIT REGRESSION RESULTS FOR DIARRHOEA DURING LAST TWO WEEKS

Explanatory variable	*Children in the age group of 0-4*	
	Urban	*Rural*
Work status of the Mother	1.1169* (0.0915)	-3.6769 (0.7586)
Education of the Mother	-0.0581 (0.9132)	0.2149 (0.5257)
Sex of the child	0.6968 (0.2370)	0.2166 (0.5229)
Age of the Mother	-0.0433 (0.7363)	-0.0190 (0.8761)
Annual household Income (log)	-1.0352 0.4517	-0.0395 (0.9599)
Presence of siblings in the age of 6-18 years	0.7896 (0.2223)	0.3336 (0.5937)
Constant	7.0925	-5.3752
-2 Log Likelihood	35.42	71.81
Number of children	158	195

Note: Figures in the parentheses are *'p'* values.

Level of Significance: *** $p < 0.01$. ** $p < 0.05$. * $p < 0.10$.

for urban than for rural children of age 5-9. Therefore, there is a need to look at the manner in which mothers work status and mother's time on child care influence child health. It is possible that child care practices differ between poor rural and urban populations. This calls for studies that examine the process of child care including possibly observation.

The finding of this study that work participation of mother does not significantly influence morbidity of young children is at variance with evidence from many earlier surveys that found an adverse effect of work participation of mother on child health. Work participation is associated with factors that influence child health but controlling for variables like education and income also showed net effect of work participation on child health in many studies based on large surveys. However, it is possible that work participation is also associated with certain other factors that influence child health but are not explicitly measured in most surveys, and hence statistical control for measurable factors alone may not be adequate. On the other hand. the present study was restricted specifically to poor localities and in this mother's work participation did not show an effect on the morbidity of young children. Yet. clearly the time input on child care is substantially affected by maternal employment, that is. working women spent much less time on child care than non-working women. Thus. large differentials in time input on

child care are not reflected on child morbidity. Various explanations could be attributed for this.

First, quality and intensity of time input; working women may have less time but probably spend it efficiently and manage to address the essential aspects of child care. It is possible that exposure to new practices of child care and time management may help women to provide good care within a shorter time. Empirical examination of this proposition would require direct observation of child care rather than a retrospective enquiry. Second, working women, because of their own earnings and probably also because of greater autonomy in managing household resources, may be in a position to deploy more of these for child care. In the process they may compensate for the time deficit. In other words, though logically work participation should adversely affect child health because of inability of working women to spend substantial time for child care, there are possibly other pathways of a positive influence on child health which could neutralise the negative influence via time. This calls for an analysis of work participation of mother on child health through various paths.

Work participation by a woman may positively influence child health through income (work raises household income allowing greater resources for food, preventive and curative health), female autonomy (working women have greater autonomy leading • to a more favourable resource allocation), knowledge about health care and awareness of and access to health care (Fig. 1). In the opposite direction, work participation may adversely influence child health due to reduced time on child care. The influences would depend on the nature of the work and familial, social and institutional factors. Therefore, an analysis of female work participation on child health must examine intermediate variables such as woman's earnings, time on child care, knowledge about health care, female autonomy, and intra-family allocation of resources. Further research needs to be focused on these lines.

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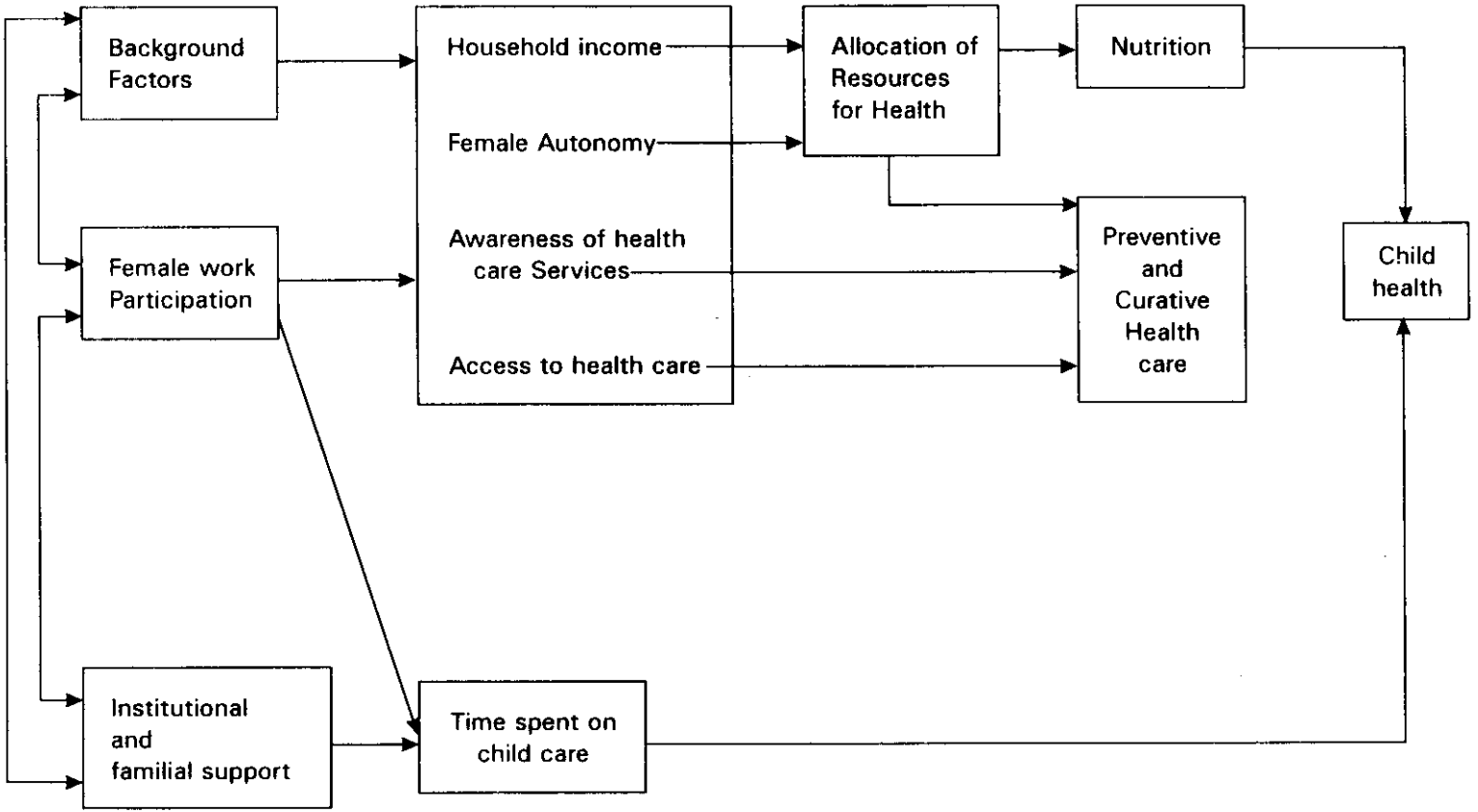

Fig. 1. Conceptual Framework for Examining the Influence of Female Work Participation on Child Health

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