



A Study of Working Mothers and Child Nutrition in Bangalore Urban

Sanghita Das¹

Abstract:

The primary aim of this paper was to find out the relationship between mothers' employment status and their children's nutrition levels in Bangalore. Primary data was collected through questionnaire method from a sample size of 100 mothers (50 working and 50 non- working). The data is diverse as it has been collected from different parts of Bangalore city and has helped in drawing interesting conclusions.

Keywords: mother's employment, children's nutrition, children's nutrition levels in Bangalore,

¹ Masters in Economics

Department of Economics, St Joseph's College (Autonomous), Bangalore
das.sanghita7@gmail.com

INTRODUCTION

As compared to olden days, women have earned more liberty in today's times with regard to employment before and after parenthood. With such diverse opportunities in different sectors, women can choose the most appropriate jobs for them. However, the negative effect of this is an inefficient time allocation of the working mothers towards their children. They are forced to rely on packed food items for their children rather than homemade nutritious meals. They are also compelled to appoint nannies or subscribe to day care centers for their children's wellbeing. It thus becomes important in a cosmopolitan city like Bangalore to study the different nutrition levels of young school going children vis-a-vis their mothers' work load.

While some women opt to be home-makers and provide complete concentration towards their children's well being, others have to balance their office pressure alongside household responsibilities. Thus, there automatically comes a difference in their children's nutrition levels as a result of consuming home-made food and packed food respectively. In a cosmopolitan city like Bangalore it is likely for the children to

depend more on packed and junk food on a daily basis. Working mothers are unable to cook separate meals due to their work timings. Thus, there is an increase in demand for outside food by children ranging from 5 to 18years which thereby has several adverse effects on their health conditions.

A BRIEF REVIEW OF LITERATURE

The background of the study deals with the fields of Health Economics, Institutional and Welfare Economics. These Literature reviews form the backdrop of the research conducted, theoretically and empirically. "The Market for Lemons: Quality Uncertainty and Market Mechanism" by George Akerlof discusses information asymmetry between two parties engaged in a transaction. George Akerlof, Michael Spence and Joseph Stiglitz received the Nobel Memorial Prize in 2001 for studying the different dimensions of information asymmetry in the automobile market. While adverse selection refers to an ex - ante transaction, meaning the information asymmetry before buying the car, moral hazard refers to an ex - post transaction meaning the undisclosed information after the purchase. In the context of this theory, there are always two parties taken into consideration: Principal

and Agent. When related to the study into consideration, the principal can be the working mother while the agent is the nanny or maid. Once the nanny or maid is employed to take care of the child and their food consumption, there automatically arises information asymmetry between the two in terms of the child's eating habits and health. It becomes the core responsibility of the nanny or maid to cater to the child's needs while the mother is away at work. Thus, there arises a communication gap between the mother and nanny regarding the child's requirements or problems. The agent might be taking better control over the child's needs or otherwise, affecting the child's nutrition and health conditions.

The Capability Approach studies that an individual's well being gets determined, not by his income, but by his capabilities over time. This capability is further determined by his health and psychological conditions through his social recognition that he achieves in life- 'beings and doings'. Every individual is unique in his attributes and functional capabilities, such as performing various activities, socializing, participating in events, exercising freedom or gaining literacy (Sen, 1980). For instance, if an individual wants to achieve great heights

in life, his health conditions would mark the beginning to his career prospects. Only if he develops his nutritional status along with his social stature will he be capable enough to set a standard to his living. Given a choice between different functional capabilities, an individual could choose according to the different values attached to each of them in his life. Similarly, if a child gets the appropriate nutritional requirements from a young age, his health base would be strong enough to allow him to choose better functional capabilities in life.

From this theoretical background, we provide a brief overview of the empirical literature concerning the effects of maternal employment on their children's nutrition levels. Myrdal and Klein (1956) conducted a research on "Women's two roles: home and work". Simpson (1981) researched on family and work as separate institutions with competing demands on women. A. Mittal (2007) ET all did a study on the effect of maternal factors on the nutritional status of one to five years old children in urban slums of Patiala. The literature reviews reveal an in depth analysis of the workload faced by rural women and an impact on their children's health and nutrition level. Several social issues, such as early marriage, illiteracy

and malnutrition of women, have also been addressed which affect the children's health and nutrition level in different parts of the country. Many empirical researches have also raised legislative policy making issues involving the setting up of child care services, NGOs, female education, public healthcare training, women empowerment and rural nutritional programmes'. The traditional family structure and stereotypical role of women have been addressed in many of the researches conducted worldwide that has a cause and effect relationship with the children's health conditions. Several health problems and diseases have also been mentioned in the studies related to young children and adolescents that are related to various social factors associated with the maternal employment status.

INTRODUCTION TO WORKING MOTHERS AND CHILD NUTRITION IN INDIA

This section represents the secondary data related to the subject in consideration that is collected from various sources. Some of the main sources are "Quality of Life of Urban Working Women" by Mala Bhandari, Abhijeet Publications", IIPS

website, World Bank website and UN website.

Since the economic reforms in the 1990s women have been streaming into urban workforce, initially as Government office employees and eventually in the booming service sectors and in professional jobs. In the last fifteen years, the number of women in total workforce has doubled not only because they have realized a world outside the four walls of the house, but also due to economic necessity. While some people have accepted the changing roles of women, some still continue to criticize their work for opposing the 'natural order'. Women are always primarily seen as a home maker irrespective of whether they are working or not. The term 'working mother' is not applicable since the mothers keep working round the clock at home as well, even if unemployed. The decision to choose their career belongs solely to these women as per their wish and these choices should be supported by the families.

According to Dr. Sushma Mehrotra, a woman should ideally return to work when the baby is at least one year old or else the child might develop separation anxiety. It is not the quantity of time spent with the mother and child, but the quality that matters. A study has shown that working

mothers spending at least one hour of quality time a day with their children have found their children to be six times healthier than housewives nagging their children all the time. However, the disadvantage may be that the children might feel neglected and seek stimulation outside the house with both working parents.

The “Working Mother” magazine has identified top ten global companies for working mothers complementing their needs and requirements, allowing them to balance household work alongside office

pressure. Some of these companies are Bank of America, Ernst & Young, Deloitte, Discovery Communications and others. In a paper on “Women’s Work and Family Strategies” by Centre for Women Development Studies, New Delhi (1984), several socio- cultural factors determining unequal distribution of resources in the household have been discussed based on the women’s occupation. Oakley had said that women taking up jobs outside the homes were forced to play dual roles affecting the nutrition and health of the children.

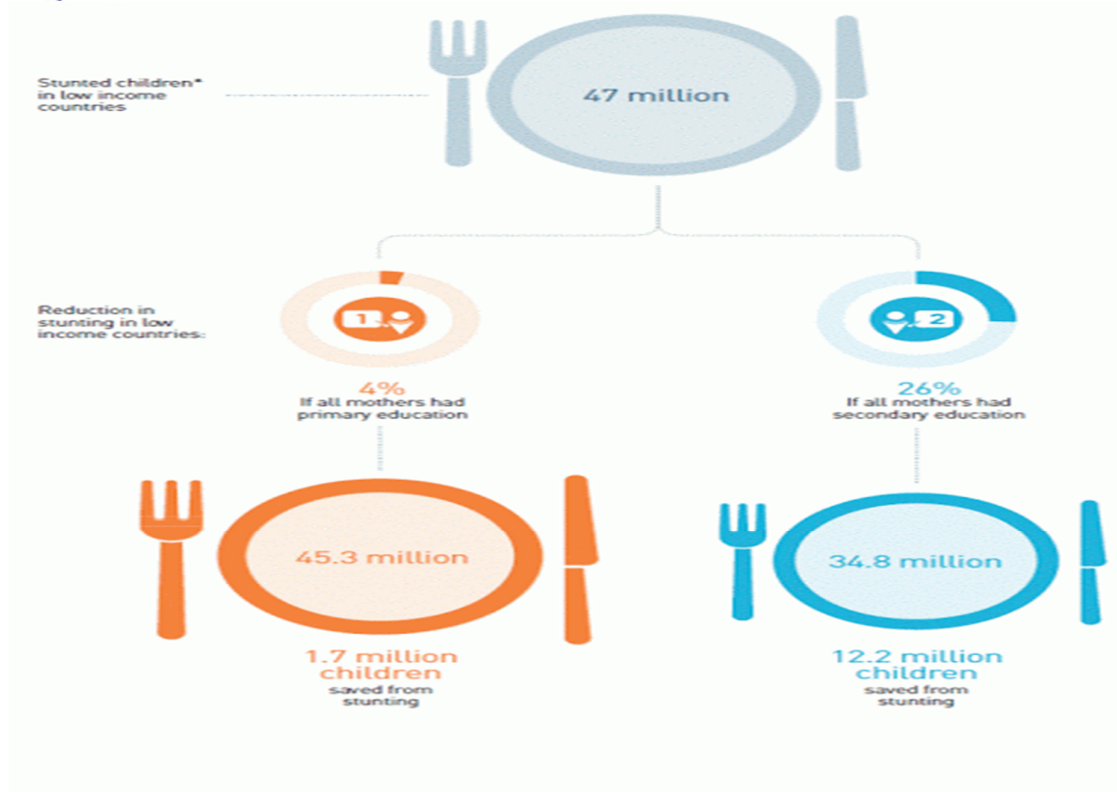
Table 1: Number of respondents with Calories and Protein intakes less than the RDA (Recommended Dietary Intake)

Range of Deviation from average intake of the samples	Calories intakes of respondents (no of cases)		Protein intakes of respondents (no of cases)	
	Working mothers	Housewives	Working mothers	Housewives
Average intakes	94%	97%	84%	87%
0-5	17	24	8	18
5-10	18	18	21	7
10-20	16	14	13	21
Above 20	4	4	6	5
TOTAL	55	60	48	51

Source: “Quality of Life of Urban Working Women”: Mala Bhandari, Abhijeet Publications

According to a recent World Bank report, the prevalence of underweight children in India is among the highest in the world, five times more than China and is nearly double than that of Sub-Saharan Africa. Five states and fifty percent of the villages account for about eighty percent of the malnutrition cases, with specific reference to Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Rajasthan, Uttar Pradesh, Andhra Pradesh and Maharashtra. Several National Family Health Surveys have been conducted from 1992- 2006 on women's health and child nutrition in all the twenty nine states of India. These NFHSs are in collaboration with International Institute for Population Science (IIPS), Mumbai, Ministry of Health and Family Welfare (MOHFW), Government of India, United States Agency for International Development (USAID), United Nations Children's Fund (UNICEF) and World Health Organization (WHO). It was found

that at the age of six to eight months only fifty three percent of the children are given timely complementary feeding. Almost forty eight percent of the children under the age of five are stunted and forty three percent are underweight due to maternal factors such as fertility, mortality, family planning, and female literacy and health conditions. Nearly half of India's children are underweight, forty five percent are stunted (less height for age), twenty percent are wasted (less weight for age), seventy five percent are anaemic and fifty seven percent have vitamin A deficiency. Most of this malnourishment happens in the early stages of a child's life, by the first year approximately. It affects the child's chances of survival, reduces immunity, reduces their ability to learn, increases their chances of dropping out of school and makes them less productive later in life.



Source: <http://motherchildnutrition.org/india/resources.html>

In a study conducted by UNESCO in 2013, it was found that twenty-two million fewer children would be stunted if all mothers reached secondary education. Educated mothers are more likely to ensure that their children receive the best nutrients to help them prevent or fight off ill health, know more about appropriate health and hygiene practices and have more power in home to make sure that the children's nutritional needs are met.

The Government of India has recently reconstructed the Integrated Child Development Services program (ICDS) with the aim of moving towards a more

balanced multi-sectoral program addressing the problem of distribution of supplementary foods and malnutrition among children aged three to six years. The revised program will now provide food for pregnant mothers, nursing mothers and children under three years of age. It will also work to improve mothers' feeding and caring practices as well as promote the immunization and growth monitoring of children. In addition, it will provide pre-school education to children, thus encompassing the troika of food, health and child care.



DATA SOURCE

The design adopted for this research is descriptive and exploratory, where, descriptive indicates that the research describes the phenomenon of children's dependency on home-made and outside food and exploratory indicates that the study explores certain unknown phenomena and correlations between certain variables. The data collected for this research is primarily collected through a survey method. The survey method included questionnaires and personal interviews of working and non-working mothers from different parts of Bangalore city. Random Stratified Sampling has been used to collect unbiased data. Secondary data have also been collected from the internet and books. These data provide information on previously conducted research on related topics and various issues related to them.

The variables that have been used in this research are: The difference in school going children's nutrition levels of working and non-working mothers (Body Mass Index), mother's age, education qualification, mother's occupation, her work timing, her income, child's age,

child's gender, child's height, child's weight, consumption of home-made food and outside food, frequency of eating out, type of breakfast consumed, type of evening snacks consumed, child's caretaker while mother is away and the pocket money that they get.

EMPIRICAL RESULTS

In this section of the paper, a description of the analysis and findings between the variables has been presented.

It was found that the higher percentages of children who have optimal weight are males (fifty five percent) while more female children (sixty percent) are overweight. The relationship between the mother's educational qualification and the child's BMI (nutrition level) has been found to be very interesting. The chi square test showed a highly significant relationship between the two variables. It shows that the higher the level of education qualification the higher the number of under weighted children. This is probably because higher education levels increase the mothers' chances to get employed and get busy with work.

Table 4.1: Mother’s Education and Child Nutrition (Body Mass Index)

NUTRITION	MOTHER’S EDUCATION	
	Secondary	Higher education
Underweight	3(6.1)	46 (93.9)

Source: Collated from field work

Note: Figures in parenthesis indicate percentages.

The relationship that has been analysed is between the child’s caretaker and the child’s BMI (nutrition level). The analysis shows that out of all the under weighed children, most of them are with nannies or maids (forty one percent) and sixty one

percent of the children with optimal weight are with their relatives. Thus, they receive fresh food at home rather than eating stale food or outside food while with their nannies or maids.

Table 4.2: Child Care Taker and Nutrition (Body Mass Index)

NUTRITION	CHILD CARE TAKER			
	With mother	Relative	Nanny/ maid	Crèche
Underweight	19 (38.8)	10 (20.4)	20 (40.8)	0
Optimal weight	9 (25)	22 (61.1)	4 (11.1)	1 (2.8)
Overweight	1 (6.7)	13 (86.7)	1 (6.7)	0

Source: Collated from field work

Note: Figures in parenthesis indicate percentages.

Table 4.3 shows an interesting finding about the relationship between the mother’s occupation and child’s BMI (nutrition level). While fifty five percent of the children of housewives are underweight compared to forty five percent of under weighed children of working mothers, fifty six percent of the children of working mothers are of optimal weight compared to forty four percent of

the children of housewives. Thus, there is more number of under weighed children of housewives than of working mothers. This is because most of the housewives prefer to cook once a day and repeat the same food items all day long. Thus the children prefer to eat outside snacks rather than the repeated eatables. On the other hand, the children of the working mothers mostly

have relatives giving them freshly prepared food at home.

Table 4.3: Mother’s Occupation and Child Nutrition (Body Mass Index)

NUTRITION	MOTHER'S OCCUPATION	
	Housewives	Working
Underweight	27 (55.1)	22 (44.9)
Optimal weight	16 (44.4)	20 (55.6)

Source: Collated from field work

Note: Figures in parenthesis indicate percentages.

ECONOMETRIC RESULTS

A Binary Logistic Regression Model was used to find out the significant variables in determining the children’s nutrition levels (Body Mass Index).

Variables in the equation: Mother’s education, her occupation, pocket money

that the children get, the relative as the caretaker of the child, the frequency of eating out, types of food eaten by the children and household income; Dependent variable: BMI (Body Mass Index)

	B	S.E.	Wald	Df	Significance	Exp (B)
Edu (years)	-0.038	0.105	0.132	1	0.716	0.963
Occupation	0.648	0.569	1.294	1	0.255	1.911
Pocket money	0.049	0.043	1.329	1	0.249	0.952
Relative	-1.019	0.441	5.354	1	0.021	0.361
Frequency of eating out	-0.375	0.223	2.832	1	0.092	0.687
Types of food eaten	-0.198	0.449	0.195	1	0.659	0.820
Household income	0.000	0.000	0.158	1	0.691	1.000
Constant	1.469	2.005	0.536	1	0.464	4.344

Source: Collated from SPSS

As the table indicates, the mother's occupation, children's pocket money, relative as the caretaker and the children's frequency of eating out are the significant variables.

The probability of the child being underweight is higher when the mother is a home-maker. This positive relation is indicated by the coefficient 0.648. This is probably because the housewives do not cook separate meals separately and instead repeat the same food all day long forcing the children to eat out.

The coefficient -0.375 indicates a lesser probability of the children being under weight with an increase in the number of times they eat out. This may again be related to the previous point that they prefer to eat out than eating stale food at home.

The coefficient 0.049 indicates a positive relation between pocket money and under weight. The probability of the children being under weight increases with an increase in the pocket money that they get. Getting pocket money increases their power to eat outside food significantly.

Finally, the probability of the children being under weight decreases with relatives taking care of them at home while the mother is away at work. This indicates

that the children staying with relatives eat fresh food prepared at different times rather than eating outside food. This is indicated by the coefficient -1.019.

CONCLUSION AND POLICY IMPLICATIONS

We can thus conclude by saying that working and non-working mothers do have different impact on their children's nutrition levels. While housewives get more time to spend with their children, working mothers depend on their relatives or nannies and maids to do that, assuring that their children get appropriate nutritious food.

Day care centres with proper amenities will make sure that healthy food is provided to the children along with proper hygiene. Working mothers should be given a longer tenure of maternity leave after childbirth to ensure that the child gets sufficient nutrition in the initial years that is required. Free and regular medical check-ups of children should be conducted monthly or annually so as to ensure the children's nutrition balance.

The Rajiv Gandhi National Crèche Scheme for the children of working mothers sets an example for other programmes that are not up to the mark to

take good care of the children's nutrition. Sufficient training should be provided through training agencies to better understand a child's psychological and physiological needs. Several Non-Governmental Organisations function focusing on malnourished children or women empowerment that help them achieve sustainable growth and success both in their careers and child rearing.

Lastly, the Karnataka Government should focus on this area and make laws that suit the needs and requirements of working mothers and work in favour of their children's wellbeing in their absence at home. Public Private Partnership is a great start for successful implementation and functioning of such programmes that are diverse and spread across different areas focusing on different aspects of working mothers.

REFERENCES

1. Ashton, D. (2004), Food Advertising and Childhood Obesity. *Journal of the Royal Society of Medicine*. Volume 97. Number 2. Page 51-52.
2. Bennett L. The role of women in income production and intra-household allocation of resources as a determinant of child nutrition and health.
3. Birch, LL. (1980), the relationship between children's food preferences and those of their parents. *Journal of Nutrition Education*. Volume 12. Page 14-18.
4. McNeal, J. (1999), *the Kids Market: Myths and Realities*. Ithaca, NY: Paramount Marketing Publishing.
5. Popkin BM, Solon E (1976), Income, time, the working mother and child nutrition. *Environmental Child Health*, Volume 22. Number 4. Page 156-66.
6. Sobal, J. & Stunkard, A.J. (1989), socioeconomic status and obesity: A review of the literature. *Psychological Bulletin*, Volume 105. Page 260-275.
7. Abbi, Gujral, Gopaldas (1988) "The Impact of Maternal Work Status on the Nutrition and Health Status of Children", Maharashtra, available on <http://www.popline.org/node/317962>, Volume 13, No 1, Page 5- 20.
8. Bamji, Murthy, Williams (1998) "The Impact of Rural women's work on Maternal and Infant Nutrition", Andhra Pradesh, available on <http://www.icmr.nic.in/ijmr/>
9. Bishop, Middendorf, Babin, Tilson (2005) "The causes of childhood obesity in the US", available on http://aspe.hhs.gov/health/reports/child_obesity/index.cfm.

10. Crepinsek Mary Kay, et al (2003) “Healthy Eating Index (HEI) scores of children of working and non- working mothers”, US.
11. Economic and Social Research Council (2011) researched on Maternal Employment and Children’s Socio- emotional behaviour in the UK, available on Journal of Epidemiology & Community Health, 2011.
12. Glick, Peter (2002), Cornell University, “Effects of women’s work on the investment in children’s human capital, encompassing their schooling and nutritional well being in the developing countries”.
13. Mittal, Singh, Ahluwalia (2007) “The Effect of maternal factors on the Nutritional status of 1-5 yr old children in the urban slums”, Patiala (Punjab)” available on <http://www.ijcm.org.in/article.asp?issn=0970-0218;year%3D2007;volume%3D32;issue%3D4;spage%3D264;epage%3D267;aulast%3DMittal>, Volume 32, No 4, Page 264- 267.
14. Srivastava, Mahmood, Shrotriya, Kumar (2010) “Nutritional Status of School aged Children in the Urban Slums of Bareilly”, Uttar Pradesh available on <http://www.archpublichealth.com/content/>, Volume 70, No 8, Page 489- 498.
15. The American Academy of Pediatrics (2009) “The extent of mothers’ employment in the recent times when compared to the 1970s and its impact on the children’s emotional, psychological and health conditions”.
16. The Cornell University (2003) “Working Parents Spend Less Time on Children’s Diet and Exercise”, available on http://abcnews.go.com/Health/w_ParentingResource/working-parents-spend-time-daily-kids-diet-exercise/story?id=17096216.
17. Toyama, Wakai, Nakamura, Arifin (2001) “Mothers’ Working Status and Nutritional Status of Children under the Age of Five in Urban low income community”, Indonesia available on <http://ije.oxfordjournals.org/content>, Volume 33, No 3. Page 589-595.
18. Yeleswarapu, Nallapu (2011) “Comparative study on the nutritional status of pre-school children of employed and unemployed women in the slums of Guntur”, available on <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3552212/>, Volume 6, No 10, Page 1718- 1721.
19. <http://ije.oxfordjournals.org/content/33/3/589>

20. <http://www.healthychildren.org/English/family-life/work-play/pages/Working-Mothers.aspx>
21. <http://www.ijcm.org.in/article.asp?issn=0970-0218;year%3D2007;volume%3D32;issue%3D4;spage%3D264;epage%3D267;aulast%3DMittal>
22. http://abcnews.go.com/Health/w_ParentingResource/working-parents-spend-time-daily-kids-diet-exercise/story?id=17096216
23. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3552212/>
24. <http://www.abtassoc.net/reports/efan04006-1.pdf>
25. <http://www.cfnpp.cornell.edu/images/wp131.pdf>
26. <http://www.sciencedaily.com/releases/2011/07/110721212455.htm>
27. <http://www.archpublichealth.com/content/>
28. http://aspe.hhs.gov/health/reports/child_obesity/index.cfm
29. <http://plato.stanford.edu/entries/capability-approach/>
30. http://eepat.net/doku.php?id=human_capital_theory_and_education
31. <http://www.workingmother.com/working-mother-best-companies-multicultural-women/advancing-women-india>
32. <http://govbooktalk.gpo.gov/category/bureau-of-labor-statistics-bls/>
33. <http://www.iipsindia.org/>
34. http://planningcommission.nic.in/reports/genrep/multi_nutrition.pdf
35. <http://www.worldbank.org/en/news/feature/2013/05/13/helping-india-combat-persistently-high-rates-of-malnutrition>