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WOMEN'S EMPOWERMENT AND NUTRITIONAL STATUS OF THEIR CHILDREN IN RURAL AND SEMI URBAN AREA

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ABSTRACT

This study attempts to analyze the status of Women Empowerment in rural and semi urban area and highlights the correlation between nutritional status of children with Women Empowerment. Today the empowerment of women has become one of the most important concerns of 21st century. But practically women empowerment is still an illusion of reality. We observe in our day to day life how women become victimized by various social evils. Women Empowerment is the vital instrument to expand women ability to have resources and to make strategic life choices. Empowerment of women is essentially the process of upliftment of economic, social and political status of women, the traditionally underprivileged ones, in the society. It is the process of guarding them against all forms of violence. The study reveals that earning status was low in 63% women, ownership was very low in 62% of women, the decision making was high in vast majority women (83%), participation in government programme was low in 83% of women and educational status was medium level in 48% of women. Children health status results indicate that BMI of mother and height for age of children were positively and significantly correlated with women empowerment and reverse trend was observed in case of weight for height. The study concluded that mothers may have a profound influence on reducing child under nutrition if they are educated and empowered.

Keywords: *women empowerment, nutritional status, socio-economic status, child health, stunting*

INTRODUCTION

Empowerment plays an important role in most of the aspects of the peoples' lives (Quing et al., 2019, Asif et al., 2019). In this regard, Chipili et al. 2018, argued that the empowerment of women is highly associated with positive child nutritional status. Empowerment is an important tool for increasing the spiritual, political, social, educational, gender or economic strength of an individual and developing confidence in one's own capabilities. Women empowerment is believed to be an important factor in determining the utilization of child health practices. Women's empowerment in India is heavily dependent on many different variables that include geographical location (urban / rural) educational status social status (caste and class) and age. Policies on Women empowerment exist at the national, state and local (Panchayat) levels in many sectors, including health, education, economic opportunities, gender based violence and political participation.

In recent years, gender equality and women empowerment have been recognized as crucial to the health and Socio-economic development of entire country, not just individual families, the influence of women empowerment on children's health and well-being has emerged as an issue of considerable research and interest in the developed as well as developing countries. Women disempowerment creates barriers to social development and results in severe consequences for child health and nutrition. As women are often the primary caregivers, their empowerment can influence nutritional status of their children but there is dearth of study on women empowerment and nutritional status of their children. Women's empowerment is intangible and latent, and is expressed in several ways, such as mobility, decision-making power, control, and the command of household resources. Economic status and education are considered enabling factors that strongly affect the empowerment of women (Folaranmi O.O., 2013).

Women's empowerment can be measured using some direct indicators such as the decision making ability of women in their individual homes, as this affect their personal circumstances and is an essential aspect of their empowerment. Furthermore, the influence of women's empowerment and/or autonomy on children's health and well-being has emerged as an issue of considerable research and interest in the developed as well as developing countries. In order to achieve higher levels of child health and reduce child mortality, it is necessary that the governments have better information on the home environment in which

children are most at risk of adverse health outcomes, DHS analytical report (1996).

Several studies have been carried out on different aspects of women's empowerment in relation to reproductive and child health status. But so far, there are only few studies conducted on a comparative basis of women's empowerment and child health outcomes. This study, therefore, seeks to compare rural and semi urban (Dholka and Anand Taluka) area women's empowerment in relation to child health practices. Parashar (2004), in his study examined how mother's empowerment in India is linked to child nutrition and immunization and suggested women to be empowered simultaneously along several different dimensions if they and their children were to benefit across the whole spectrum of their health and survival needs. A study by Tuladhar et al. (2013), Suggested that women's empowerment and spousal violence appeared to have significant implications for the health of women and their children. Other study by Ibrahim et al. (2015) , on the Effect of Women's Empowerment on Child Health Status: Study on two Developing Nations. M. Bhavani Sankara Rao (2011) has highlighted that health of women members of SHG have certainly taken a turn to better. It clearly shows that health of women members discuss among themselves about health related problems of other members and their children and make them aware of various Government provisions specially meant for them. Sethuraman K. (2006) research paper explores the relationship between Women's Empowerment and Domestic Violence, maternal nutritional status and the nutritional status and growth over six months in children aged 6 to 24 months in a rural and tribal community.

OBJECTIVES

(1) To measure empowerment level of rural women having children aged six to sixty months

(2) To determine the nutritional status of children aged six to sixty months

(3) To assess the relationship between women empowerment and nutritional status of their children

METHODOLOGY

The study was conducted in semi urban area (Anand taluka) and rural area (Dholka taluka) of Gujarat state. Five villages of each taluka were selected randomly considering the proximity. (20 km from taluka place). The sample size was one hundred women having children aged six to sixty months. Ten women respondents were selected randomly from each villages constituted total 100 respondents. When mother had more than one child aged six to 60 months, the older child was excluded.

Tools for data collection were digital weighing scale, height board or stature meter and structured-questionnaire. The precision of the digital weighing scale was 100 gm. The height was recorded to the nearest 0.1 cm. The weight was taken on barefoot and minimal cloths. For child less than 1 year of age, the "mother-and-baby function" was used that enabled determination of the body weight of child while being held in the arms of the mother. Z-score was used to determine underweight, stunting and wasting based on WHO Growth Standard. Individual face-to-face interview of mothers having children aged 6-60 months was taken by using teacher made well structured gujarati version interview schedule.

The anthropometric measurement was carried out as per WHO guideline. Anthropometric calculation was done in WHO Anthro version 3.2.2. Children whose Weight-for-Age Z-Score (WAZ), Height-for-Age Z-score (HAZ) and Weight-for-Height Z-score (WHZ) was below minus two standard deviations (-2 SD) from the median of the WHO reference population were classified as underweight, stunted (short for their age) or chronically malnourished and wasted (thin) or acutely malnourished respectively. Health status of women was measured by BMI. Women's empowerment was assessed using Women's Empowerment Index

The five indicators as described in results were taken for measurement of the Women's Empowerment Index. These five indicators were weighted by the experts and on the basis of weightage and using following formula empowerment index was worked out for individual respondents.

Empowerment index= $\{(A_1/B_1)xW_1\} + \{(A_2/B_2)xW_2\} + \{(A_3/B_3)xW_3\} + \{(A_4/B_4)xW_4\} + \{(A_5/B_5)xW_5\}$

A = Actual obtained scores of individual indicator

B = Maximum obtainable scores of individual indicator

W – Weightage given by expert for individual indicator

(1) Women's involvement in household decision-making (Include 5 decisions: access to health care, child rearing, purchasing, personal belonging and freedom to visit or mobility)

(2) Women's membership in community groups

(3) Women's cash earnings.

(4) Women's ownership of house/land/ Livestock

(5) Women's education

The data calculated were tabulated were analysed in light of the objective by using appropriate statistical tools viz. Percentage, mean, correlation coefficient etc.

RESULTS AND DISCUSSION

The demographic characteristics of children and their mother in the two study areas was observed and it revealed that most of the women were between the age 25-35 years (Anand-88%, Dholka-52%), followed by 15 to 25 years and then 35 to 50 years with 23 and 7 per cent, respectively.

Vast majority of women were residing with joint family (84%) and of Hindu religion (83%). About half percentage of women had primary education (48%).Most of the women were unemployed (67%) and 44% women of rural area were helping her husband in work. 49% women had monthly income around 5000 to 10000 rupees. Age of marriage was more than 18-25 years for most of the respondents (60%) in which semi urban and rural area 78% and 42%, respectively while 32% of respondents of rural area were married before 18 years. Most of the woman was mother of two or more children in both talukas. Children surveyed in this study 40% children were in the age range of 3 to 4 years and 58% were girl child.

Table 1 : Nutritional status of the children

Sr. No.	Nutritional status	Prevalence rate	Semi Urban (n=50)		Rural (n=50)	
			No.	Percent	No.	Percent
1	Underweight (weight-for-age) (Mean Z-score)	58 (-1.22)	38	76.00	20	40.00
2	Stunting(length-for-age) (Mean Z-score)	32 (-1.02)	08	16.00	24	48.00
3	Wasting (weight-for-length) (Mean Z-score)	29 (-1.04)	11	22.00	18	36.00

The prevalence of underweight, stunting and wasting among children were 58 percent 32 percent and 29 percent respectively. The mean Z-score for weight-for-age (underweight) was -1.22, for height-for-age (stunting) was -1.02 and for weight-for-height (wasting) was -1.04.This table also shows the percentage distribution of status according to two geographical areas. It is found that frequencies of underweight was more (76%) and stunting was less (16%) in semi Urban as compared to rural where underweight was less (40%) but frequencies of stunting (48%) and wasting (36 %) was more.

Table 2. Nutritional status of women by BMI classification

Sr. No.	Nutritional status	BMI	Number (n=100)	Semi Urban (n=50)		Rural (n=50)	
				No.	Percent	No.	Percent
1	Severe	<18.5	28	10	20.00	18	36.00
	Mean BMI			16.1		17.2	
2	Normal	18.5-24.9	52	32	64.00	20	40.00
	Mean BMI			21.6		21.4	
3	Over weight	>25	20	08	16.00	12	24.00
	Mean BMI			26.3		27.1	

More than 50% of respondent mothers were having normal nutritional status. Frequencies of undernourished women were more in rural (36%) while in semi urban it was 20%. (Table 2).

Significant associations of socioeconomic status and WE with children's nutrition was estimated in Ethiopia by analyzing the data through Ethiopian demographic and health surveys in 2011 (Ebot J.O.,2015). A positive relationship was found between women's empowerment and women's education, the excess of economic resources, and women in the family, and the negative relationship between the dependent variable and decision-making autonomy in a selected rural community in Nigeria (Folaranmi O.O., 2013). Siddhanta and Chattopadhyay (2017) studied the association between WE and child stunting in Eastern Bangladesh and India. The mother's education and her decision-making power—which are indicators of women's empowerment—showed a negative and significant relationship with child stunting. A similar study revealed a significant relationship

between WE and CN outcomes in Nigeria and India (Ibrahim et al., 2015). An analysis through PDHS (Demographic P. Health Survey, 2013) found that the mother's education played a positive role in reducing children's malnutrition in Malawi, Tanzania, and Zimbabwe (Makoka D., 2013).

Table 3. Nutritional status according to weight for age (based on NCHS reference)

Sr. No.	Grade of under nutrition	Number (n=100) (Mean Z-score)	Semi Urban (n=50)		Rural (n=50)	
			No.	Percent	No.	Percent
1	Normal (≤ -2 to+2 Z-score)	70(-1.2)	39	78.00	31	62.00
2	Moderate(-2 to-3Z-score	22(-2.5)	09	18.00	13	26.00
3	Severe(<-3 Z-score)	08(-3.6)	02	04.00	06	12.00

The weight for age, expressed as percentage or Z scores of individual weight to the median or 50thpercentile of the international population references (WHO/NCHS growth references) is generally considered as one of the indicators of underweight. This table shows the percentage distribution of undernourished children in both talukas. It is found that frequency percentage of underweight (i.e., moderate plus severe form) in rural and semi urban area were 38% and 22% respectively. It indicates that prevalence of underweight is higher in rural area. In other words, the nutritional status with respect to weight for age seems to be better in semi urban area. (Table-3)

Table 4: Nutritional status according to height for age (based on NCHS reference)

Sr. No.	Grade of stunting	Number (n=100) (Mean Z-score)	Semi Urban (n=50)		Rural (n=50)	
			No.	Percent	No.	Percent
1	Normal(≤ -2 to(+2 Z-score)	52(-1.0)	10	20.00	42	84.00
2	Moderate(-2 to-3Z-score	32(-2.5)	25	50.00	07	14.00
3	Severe(<-3 Z-score)	16(-3.8)	15	30.00	01	02.00

Height for age is considered as one of the best indicator of stunting or short stature of individuals due to under nutrition. Table 4 shows the nutritional status of both talukas according to height for age. It is seen that proportion of children of semi urban with normal, moderate and sever forms of growth retardation are 20%, 50% and 30% respectively. In case of rural area, these frequencies are found to be 84%, 14% and 2% respectively. It shows that the overall prevalence of stunting (moderate plus severe form) for children is higher in semi urban area than in rural area, It also indicates that the nutritional status with respect to height for age seems to be better in rural area. These differences in the distribution of undernourished children might be due to genetic reason.

Table 5: Nutritional status according to weight for height (based on NCHS reference)

Sr. No.	Grade of wasting	Number (n=100) (Mean Z-score)	Semi Urban (n=50)		Rural (n=50)	
			No.	Percent	No.	Percent
1	Normal(≤ -2 to(+2 Z-score)	71 (-1.04)	48	96.00	23	46.00
2	Moderate(-2 to-3Z-score	07(-2.6)	01	02.00	06	12.00
3	Severe(<-3 Z-score)	22(-3.6)	01	02.00	21	42.00

Table 5 further shows the percentage distribution of growth retardation in children of both talukas according to weight for height. It is generally considered as the best indicator of body fat mass, or wasting and thinness due to chronic energy deficiency. The nutritional status of children of both the talukas shows that the prevalence of wasting is higher in children of rural area (54%) than in children of semi urban area (04%).

Table 6: Distribution of women with respect to various dimensions for women empowerment (n=100)

Sr. No.	Indicators	Empowerment level				
		Very Low	Low	Medium	High	Very high
1	Earning status	00	63	32	05	00
2	Ownership of house/land/Livestock	62	37	01	00	00
3	Decision-making	00	00	17	83	00
4	Participation	00	88	10	02	00
5	Educational status	00	14	48	28	12

Results of table 6 indicates that earning status was low in 63% women, ownership was very low in 62% of women, the decision making was high in vast majority women (83%), participation was low in 83% of women and educational status was medium level in 48% of women. The results of one study showed that the indicators of women's empowerment, such as the education of the mother, their employment status, and decision-making about visits to the family by women had a positive and significant effect on child nutritional status (i.e., reduced malnutrition). Similarly, higher household wealth status also had a negative and significant effect on CIAF. Household size was positively related to CIAF, indicating higher chances of child malnutrition due to an increase in household size (Gul and Kibria, 2013). Malnutrition was found to affect future health outcomes, societal productive potential, and socioeconomic development in Peshawar (Gul and Kibria, 2013, Babar et al., 2013).

Table 7: Distribution of respondents according to their overall empowerment

Sr. No.	Overall Women empowerment index (Scores)	Number (n=100)	Semi Urban (n=50)		Rural (n=50)	
			No.	Percent	No.	Percent
	Very Low (0-20)	00	00	00.00	00	00.00
	Low (21-40)	10	03	06.00	07	14.00
	Medium (41-60)	86	43	86.00	43	86.00
	High (61-80)	04	04	08.00	00	00.00
	Very high (81-100)	00	00	00.00	00	00.00

More than half 86 percent of participant women were moderately empowered. About 6- 14 percent were low empowered whereas 8 percent of participant women from Anand taluka were highly empowered.

Table 8: Association between Women Empowerment (measured by the (WEI 5D) and the nutritional status of under-five children (6-60 months) & mother (n=100)

Sr. No.	Variables	r value
X_1	Weight for age	0.034
X_2	Height for age	0.205*
X_3	Weight for height	-0.198*
X_4	BMI of mother	0.235*

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Table 8 results indicate that BMI of mother and height for age of children were positively and significantly correlated with women empowerment and reverse trend was observed in case of weight for height.

Table 9 depicts that income, education and age of the time of marriage were found positively and significantly correlation with the empowerment of women. The family type was negatively and significantly correlated. Thus women belongs to nuclear family had higher empowerment then women belongs to joint family as decision making ability is suppressed by other member of the family.

Table 9: Association between Women Empowerment (measured by the (WEI 5DE) and other selected variables (n=100)

Sr. No.	Variables	r value
X_1	Mothers age	0.077
X_2	Family type	-0.249*
X_3	Education	0.293**
X_4	Occupation	-0.010
X_5	Income	0.400**
X_6	Marriage age	0.217*
X_7	No. of child	0.067

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Child health showed a positive relationship with the education of the mother, the age of the mother, income, household size, access to safe drinking water, the location of the house; and a negative relationship between the education of the father, ownership of the assets, the age of the child, and the gender of the child in Ghana (Zereyesus et al., 2017). Malnutrition is inversely related to the mother's level of education (Gul and Kibria, 2013). Various Pakistani studies have reported that maternal illiteracy is strongly correlated with childhood malnutrition (Hirani S.A.A., 2012, Ali et al., 2005). A maternal education that is higher than the primary level is necessary to reduce malnutrition (Makoka D., 2013 and Bhimani *et al.* 2019).

CONCLUSION

It can be concluded that mothers may have a profound influence on reducing child under nutrition if they are educated and empowered. Enhancing education levels may be necessary but not a sufficient condition in improving child nutritional status. Results implied that for further improvement of the child nutritional status, policies and programmes should directly focused on pregnancy, first five years of child's life. Empowerment of mothers is needed along with awareness about proper nutrition to be given to child. Findings from the study revealed that women's decision making autonomy in the household as a direct measure of empowerment contributes significantly to child health outcomes in the two study areas considered. Since women's decision making ability in the household settings is a major indicator of their empowerment, it is in place to conclude that women should be empowered by allowing them have a say in the household matters so as to have a better and healthy family set up.

This study thus shows that, in the interest of bringing about sustainable improvements in child nutritional status, women's status in terms of dimensions included in the composite empowerment model should be considered in all interventions by the government of India, as well as by development partners and international agencies.

REFERENCES

Ali S.S., Karim N., Billoo A.G., Haider S.S. (2005) 'Association of literacy of mothers with malnutrition among children under three years of age in rural area of district Malir, Karachi. Children.', 9:10.

Asif M., Jameel A., Hussain A., Hwang J., Sahito N. (2019) 'Linking Transformational Leadership with Nurse-Assessed Adverse Patient Outcomes and the Quality of Care: Assessing the Role of Job Satisfaction and Structural Empowerment'. *Int. J. Environ. Res. Public Health.*,16:2381.

Babar N.F., Muzaffar R., Khan M.A., Imdad S. Impact of socioeconomic factors on nutritional status in primary school children. *J. Ayub Med.* Coll. Abbottabad. 2010;22:15–18.

Bhavani shankar Rao M. Impact of SHG on Family Welfare Programme, *Asian Entrepreneur,* 2011, 20-30

Bhimani, G. J., Prajapati, M. R. and Parmar, H. C. (2019) Adoption of fruits and vegetable preservation technology by farm women of Surat district. *Guj. J. Ext. Edu.* 30(1):23-26.

Chipili G., Msuya J., Pacific R., Majili S. (2018) 'Women Empowerment and the Nutrition Status of Children Aged Between 6-59 Months.' *J. Nutr. Health Sci.,* 5:208.

Demographic P. Health Survey (2013) 'Islamabad and Calverton. National Institute of Population Studies; Islamabad, Pakistan: ICF International; Cambridge, MA, USA.

Ebot J.O. (2015) "Girl Power!": The Relationship between Women's Autonomy and Children's Immunization Coverage in Ethiopia. *J. Health Popul. Nutr.*, 33:18.

Folaranmi O.O. (2013) 'Women empowerment as a determinant of investments in children in selected rural communities in Nigeria.' *Afr. Res. Rev*., 7:138–161.

Gul R., Kibria Z. (2013) 'Prevalence and pre determinants of malnutrition in children under 3 years of age in the two rural communities of Peshawar.' *Khyber Med. Univ. J.,* 5:190–194.

Hirani S.A.A. (2012) 'Malnutrition in young Pakistani children.' J. Ayub Med. Coll., 24:150– 153.

Ibrahim A., Tripathi S., Kumar A.(2015) 'The Effect of Women's Empowerment on Child Health Status: Study on two Developing Nations', *International Journal of Scientific and Research Publications,* Volume 5(4), 1-5.

Makoka D. (2013) 'The Impact of Maternal Education on Child Nutrition: Evidence from Malawi, Tanzania, and Zimbabwe'. ICF International; Calverton, MD, USA.

Parasar, S. (2004) "A Multidimensional Approach to Women's Empowerment and its Links to the Nutritional Status and Immunization of Children in India". *International Journal of Scientific and Research Publications*, Volume 5(4).

Qing M., Asif M., Hussain A., Jameel A. (2019) 'Exploring the impact of ethical leadership on job satisfaction and organizational commitment in public sector organizations: The mediating role of psychological empowerment'. *Rev. Manag. Sci.,* 1–28

Sethuraman, K., Lansdown R., and K. Sullivan (2006) 'Women's Empowerment and Domestic Violence: The Role of Socio-Cultural Determinants in Maternal and Child Under nutrition in Tribal and Rural Communities in South India'. *Food and Nutrition Bulletin* 27(2): 128–143.

Siddhanta A., Chattopadhyay A. (2017) 'Role of Women's Empowerment in Determining Child Stunting in Eastern India and Bangladesh.' Soc. Sci. Spectr.

Tuladhar S, Khanal K.R, Lila KC, Ghimire PK, Onta K. (2013) "Women's Empowerment and Spousal Violence in Relation to Health Outcomes in Nepal: Further Analysis of the 2011 Nepal Demographic and Health Survey. Calverton, Maryland, USA: Nepal Ministry of Health and Population, New ERA, and ICF International.

Zereyesus Y.A., Amanor-Boadu V., Ross K.L., Shanoyan A. (2017) 'Does Women's Empowerment in Agriculture Matter for Children's Health Status? Insights from Northern Ghana.' *Soc. Indic. Res.,* 132:1265–1280.

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