

Women's Empowerment and Nutritional Status of their Children: A Community-based Study from Villages of Bhaktapur District, Nepal

Shiwakoti R*, Devkota MD, Paudel R

Department of Community Medicine and Public Health, Maharajgunj Medical Campus, Institute of Medicine, Nepal

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Abstract Under-nutrition is one of the leading causes of morbidity and mortality among children. Since women are often the primary caregivers, their empowerment can influence nutritional status of their children. The objective of the study was to assess relationship between women's empowerment and nutritional status of their children. A cross-sectional descriptive study was carried out in randomly selected five villages of Bhaktapur district. A total of 402 children aged six to 59 months were selected using systematic random sampling and their mothers were interviewed. Women's empowerment was assessed using composite index. Anthropometric measurements were obtained using height board and digital scale. Multivariate logistic analysis was carried out. The results show that among 402 mothers, 18 percent were low empowered whereas 27 percent were highly empowered. The prevalence of underweight, stunting and wasting of children was 13, 19 and 7 percent respectively. Low empowerment of women was found to be positively associated with underweight (AOR=5.070; 95 percent CI: 1.885-13.638), stunting (AOR=3.031; 95 percent CI: 1.281-7.141) and wasting (AOR=10.056; 95 percent CI: 1.127-89.693) of their children. Women with low empowerment had children that were more underweight, stunted and wasted. These results suggest that improving women empowerment could have a positive impact on nutritional status of their children.

Keywords Women's Empowerment, Under-nutrition of Children, Bhaktapur, Nepal

stunted, more than 100 million are underweight and 52 million are wasted (1). In Nepal 11 percent, 29 percent and 41 percent of the children are wasted, underweight and stunted respectively (2).

Under-five children are the vulnerable and the most important target group (3) where malnutrition plays a pivotal role in their mortality and morbidity along with delayed mental and motor development. In the long run, malnutrition decreases the educational achievement, labor productivity and economic growth of a country (4). Adequate nutrition during infancy and childhood is fundamental to a child's full developmental potential (5).

The various risk factors for child under-nutrition are identified, which are related to the child, mother and their environment (6,7). Since women are often the primary caregivers, their empowerment can influence nutritional status of their children (8).

Although improvement in women's status is a key factor in child health, its relative importance is not clearly understood as many researchers use proxy indicators such as education, employment or wealth status. Women empowerment is contextual and multidimensional in nature; the association between women's empowerment and health outcomes might or might not follow the same patterns (8, 9). Hence, it is important to study these relationships in the local context. This study was an attempt to fill the information and knowledge gap in this area and potential use of it will be policy and program design to appropriately address child nutrition in a sustainable way through women's empowerment.

1. Introduction

Under-nutrition is one of the leading causes of morbidity and mortality among the under-five children. Globally, more than three million preventable child deaths can be attributed to child under-nutrition. A current estimate indicates that nearly 165 million under-five children are

2. Objectives

2.1. General Objective

To assess relationship between women's empowerment and nutritional status of their children aged six to 59 months in selected villages of Bhaktapur District, Nepal

2.2. Specific Objectives

1. To determine the nutritional status of children aged six to 59 months
2. To measure empowerment level of women’s having children aged six to 59 months
3. To assess the relationship between women’s empowerment and nutritional status of their children aged six to 59 months

3. Materials and Methods

3.1. Study Area

The study was conducted in Bhaktapur District, one of the districts of central developmental region of Nepal. It consists of 2 municipalities and 16 villages. It is adjacent to the capital city Kathmandu and is located in the eastern part of Kathmandu valley. It is growing in faster pace of modernization.

3.2. Study Design and Selection of Participants

Table 1. Calculation of sample size

S.N.	Variables	p (prevalence)	N ₀	5% of N ₀	N= N ₀ + 5% of N ₀
1	Stunting	41%	372	19	391
2	Wasting	11%	150	8	158
3	Under-weight	29%	316	16	332
4	High empowerment level	17%	217	11	228
5	Moderate empowerment level	48%	383	19	402
6	Low empowerment level	35%	349	17	366

Note: Prevalence of the variables was taken from Nepal Demographic Health Survey (NDHS) 2011(2). Since the largest calculated sample size was 402, it was taken as the sample size of the study.

A cross-sectional descriptive study was carried out in Bhaktapur District, Nepal. Out of 16 villages, five villages (Katunje, Gundu, Jhaukhel, Duwakot and Balkot) were randomly selected. The sample size i.e. 402 was calculated through the Epi-Info Statcalc version seven with 95 percent two-sided confidence level and five percent non-response rate (Table 1). Village level complete list of under-five children was prepared with the help of Vitamin A register maintained by Female Community Health Volunteers (FCHVs) of each selected wards and inquiry with FCHV for missing households from the register. The total number of children was 4673. From the sampling framework prepared, 402 samples were selected using systematic random sampling. The first sample was randomly selected from Katunje village and the subsequent sample was selected in

the interval of 12 from the list. When mother had more than one child aged six to 59 months, the older child was excluded. Caretaker of the child other than mother was excluded. The dropout rate was zero.

3.3. Data Collection and Statistical Analysis

Table 2. Scoring of the five indicators used in the development of the Women’s Empowerment Index:

S.N.	Questions	Coding and scores
	Women’s involvement in household decision-making (Include 3 decisions: access to health care, household purchasing, and freedom to visit relatives)	Participated in all 3 decisions =2 Participated in 1 or 2 decisions =1 Did not participate in any decisions=0
	Women’s membership in community groups	Member of any community group (mothers’ group, saving group, women’s group)=1 Was not involved in any groups =0
	Women’s cash earnings	Earned cash only or both cash and in-kind=1 Did not earn cash at all=0
	Women’s ownership of house/land	Owned a house, land, or both alone or jointly with husband=1 Did not own any house, land =0
	Women’s education	Attained secondary or higher education=2 Attained primary level education= 1 Did not attend school at all=0

Note:
The total scores=0-7
0 to 2=Low empowerment level
3 or 4=Moderately empowered
5 to 7=Highly empowered

Tools for data collection were Seca digital weighing scale, height board of UNICEF, stature meter and structured-questionnaire. Weighing equipment was standardized with standard weights before taking every measurement. The precision of the Seca digital weighing scale was 100 gm. The height was recorded to the nearest 0.1 cm. The height was recorded after being checked by two persons. 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. The height board and stature meter were used to measure length/height of children and height of mother respectively. Recumbent length in children younger than 24 months of age and standing height for 24 months onwards were measured. Z-score was used to determine underweight, stunting and wasting based on WHO Growth Standard-2006(10). Individual face-to-face interview of mothers having children aged 6-59 months was taken using pre-designed, pre-tested, structured questionnaire. NDHS questionnaires were adapted for measuring wealth index (11) and Women’s Empowerment

Index (12). Similarly, Household Food Insecurity Access Scale, developed by USAID's Food and Nutrition Technical Assistance project (13) was used for measuring household food insecurity. WHO criteria was followed for developing questionnaire on child feeding practices(14) with necessary modifications as appropriate to the local context.

Age of child was determined by asking mother about the current age of the child. It was crosschecked and ascertained from birth certificate, hospital discharge certificate, mother and child card or local calendar of events. The age of the child was calculated by subtracting date of birth from date of interview. The anthropometric measurement was carried out as per WHO guideline(15). Women's empowerment was assessed using Women's Empowerment Index (12), which composed of five variables; women's involvement in household decision-making, membership in community groups, cash earnings, ownership of house/land and education of women (Table 2).

Questionnaire was translated into Nepali language after consulting with experts and pretested in Dadhikot village of Bhaktapur District which constituted 10 percent of sample size. After pre-testing of the tools, some skipping pattern in questionnaire was added. However, the result of pre-test was not analyzed.

After pre-testing of questionnaire, researcher herself was involved in the data collection process with the support of four enumerators. It took total eight weeks for data collection from 16th September 2014 to 15th November 2014.

Coding and entry of collected data were done in Epidata 3.1. Anthropometric calculation was done in WHO Anthro version 3.2.2(16). Necessary cleaning of data such as detection and correction of inaccurate record, harmonization of short codes to actual words were done. Exclusion criteria were such as determined beforehand. All the collected data were complete thus none of the participants were excluded. Data was analyzed in Version 20 of Statistical Package for Social Sciences Software.

Descriptive analyses were conducted to present general information of the study population. Bivariate and multivariate analyses were done to find our association between outcome and explorative variables. In bivariate analysis, Chi-square test (or Fisher exact test) was applied to test the significance of association between independent and dependent variables. Odds ratio with 95 percent confidence interval (CI) interval was used to test the strength of the association. Variables that were found statistically significant at 90 percent CI during bivariate analysis were checked for multicollinearity and then further analyzed using logistic regression model in multivariate analysis. Adjusted Odds Ratio (AOR) with 95 CI and p-value were calculated.

3.4. Variables

Children whose Weight-for-Age Z-Score (WAZ) was below minus two standard deviations (-2 SD) from the

median of the WHO reference population were classified as underweight. Children whose Height-for-Age Z-score (HAZ) was below -2 SD from the median of the WHO reference population were considered short for their age (stunted) or chronically malnourished. Children whose Weight-for-Height Z-score (WHZ) was below -2 SD from the median of the WHO reference population were considered thin (wasted) or acutely malnourished (17). Age of the child was calculated by subtracting date of birth from date of interview. Women's empowerment was assessed using Women's Empowerment Index (Table 1)(12). For socioeconomic status, wealth index was computed using Principle Component Analysis considering the assets holdings of participants. The components included in wealth index were ownership of house, vehicle, animals, electronic goods (radio, television, and refrigerator), furniture (table, chair, sofa, and cupboard), mobile phone, telephone, housing characteristics and type of fuel for cooking. The wealth quintiles (from lowest to highest) were ranked into five equal categories, each comprising 20 percent of the study population.

3.5. Ethical Consideration

The study was approved by the Institutional Review Board of Institute of Medicine, Tribhuvan University, Kathmandu, Nepal. Informed written consent was obtained from participants. Confidentiality of information was assured and insured throughout the study. Information on nutrition was given to mothers having undernourished children. Mothers of severely undernourished children were advised to seek health care from the nearest health facility or Kanti Children Hospital.

4. Results

Table 3 shows the general characteristics of the participants. Among 402 mothers and their children, the mean age of mothers was 27 years and the mean age of children was 27 months.

The prevalence of underweight, stunted and wasted among children were 13.4 percent (95 percent CI: 10.1, 16.7), 19.4 percent (95 percent CI: 15.5, 23.3) and 6.5 percent (95 percent CI: 4.1, 8.9) respectively. The mean Z-score for weight-for-age (underweight) was -0.82 (95 percent CI: -0.917, -0.714), for length-for-age (stunting) was -1.08 (95 percent CI: -1.201, -0.963) and for weight-for-length (wasting) was -0.32 (95 percent CI: -0.421, -0.201) (Table 4).

More than half (56 percent) of participant women were moderately empowered. About one in five (18 percent) were low empowered whereas about one in four (27 percent) were highly empowered (Table 5).

Table 3. Distribution of demographic characteristics of the respondents

Characteristics	Number (n=402)	Percent
Ethnicity		
Disadvantaged group (<i>dalits</i> ¹ , disadvantaged <i>janajatis</i> ² , disadvantaged <i>non-dalit terai</i> ³ people and religious minorities)	88	21.9
Advantaged group (advantaged <i>janajatis</i> ⁴ and upper caste)	314	78.1
Age group of mother (in years)		
<20	15	3.7
20-34	357	88.8
≥ 35	30	7.5
Mean age ± SD	27.22 ± 4.60	
Religion		
Hindu	381	94.8
Other (Buddhist, Muslim, Christian)	21	5.2
Family size		
≤ 5 persons	252	62.7
>5 persons	150	37.3
Mean household size ± SD	5.71 ± 4.05	
Type of family		
Nuclear	194	48.3
Joint	170	42.3
Extended	38	9.5
Number of children in family		
Single child	187	46.5
Two or more child	215	53.5
Age of index child (in months)		
6-11	76	18.9
12-23	112	27.9
24-35	100	24.9
36-47	66	16.4
48-59	48	11.9
Mean age ± SD	26.87 ± 14.68	
Sex of index child		
Male	226	56.2
Female	176	43.8
Birth order		
First	191	47.5
Second	166	41.3
Third or more	45	11.2
Birth interval in months (n=211)		
<24	34	16.1
25-47	48	22.7
>47	129	61.7
Mean birth interval ± SD	61.43 ± 38.43	

Table 4. Nutritional status of the children

Characteristics	Number (n=402)	Percent (95 % CI)
Underweight		
Mean Z-score for weight-for-age (95% CI)	54	13.4(10.1, 16.7)
Stunting		
Mean Z-score for length-for-age (95% CI)	78	19.4 (15.5, 23.3)
Wasting		
Mean Z-score for weight-for-length (95% CI)	26	6.5 (4.1, 8.9)

1 Used to be considered untouchable

2 Disadvantaged indigenous group

3 Disadvantaged people residing in plain who are considered touchable

4 Advantaged indigenous group

Table 5. Women empowerment index and its various dimensions

Characteristics	Number (n=402)	Percent (95 % CI)
Women Empowerment Index		
Low	72	17.9 (14.2,21.6)
Moderate	223	55.5 (50.6, 60.4)
High	107	26.6 (16.6, 30.9)
Participation in three key household decision-making		
No participation	73	18.2
Participate in one or two decisions	121	30.1
Participate in all three decisions	208	51.7
Membership in community group		
No	273	67.9
Yes	129	32.1
Earning status		
No	274	68.2
Yes	128	31.8
Ownership of house/land		
No	373	92.8
Yes	29	7.2
Educational status		
No education	35	8.7
Primary level	70	17.4
Some secondary level	85	21.1
Higher secondary and above	212	52.7

Bivariate analysis showed that five factors i.e. age of child, wealth quintile, separate kitchen, Body Mass Index (BMI) of mother, women's empowerment were independently associated with underweight of children (Table 6). Six factors (Age of child, place of delivery, number of growth monitoring in the last six months, treatment of drinking water, separate kitchen, women's empowerment) were independently associated with stunting (Table 7). Two factors (Colostrum feeding and women's empowerment) were independently associated with wasting (Table 8).

Table 6. Unadjusted and adjusted OR and 95 percent CI for effect of women's empowerment on underweight of children (n=402)

Characteristics	Unadjusted OR (95 % CI)	Adjusted OR without WEI (95 % CI)	Full model OR (95 % CI)
Women Empowerment Index (WEI)			
Low	6.286 (2.516-15.706)*		5.070 (1.885-13.638)*
Moderate	1.804 (0.754-4.314)		1.596 (0.650-3.916)
High	Ref		Ref
Age of index child			
≥ 24 months	1.910 (1.045-3.493)*	2.287(1.207-4.335)*	2.345 (1.215-4.524)*
< 24 months	Ref	Ref	Ref
Type of family			
Joint and extended	0.599 (0.335-1.072)	0.791 (0.415-1.508)	0.658 (0.338-1.279)
Nuclear	Ref	Ref	Ref
Wealth quintile			
Lowest	6.926 (1.942-24.705)*	6.048 (1.627-22.481)*	4.555 (1.190-17.445)*
Second	3.208 (0.835-12.321)	2.657 (0.642-10.999)	2.239 (0.527-9.519)
Middle	5.923 (1.642-21.363)	4.580 (1.131-18.549)	2.943 (0.703-12.330)
Fourth	3.615 (0.956-13.667)	3.003 (0.762-11.843)	2.980 (0.748-11.882)
Highest	Ref	Ref	Ref
Separate kitchen			
No	1.878 (1.026-3.439)*	1.253 (0.600-2.617)	1.081 (0.512-2.280)
Yes	Ref	Ref	Ref
BMI of mother			
Underweight	1.602 (0.645-3.980)	1.780 (0.668-4.741)	1.731 (0.634-4.472)
Overweight	0.417 (0.179-0.971)*	0.448 (0.187-1.072)	0.476 (0.195-1.164)
Obese	1.090 (0.353-3.362)	1.217 (0.372-3.976)	1.144 (0.331-3.956)
Normal	Ref	Ref	Ref

* Significant at p <0.05; Ref = Reference category

Table 7. Unadjusted and adjusted OR and 95 percent CI for effect of women’s empowerment on stunting of children (n=402)

Characteristics	Unadjusted OR (95 % CI)	Adjusted OR without WEI (95 % CI)	Full model (95 % CI)
Women empowerment index			
Low	3.615 (1.692-7.725)*		3.031 (1.287-7.141)*
Moderate	1.629 (0.832-3.189)		1.413 (0.697-2.862)
High	Ref		Ref
Age of index child			
≥ 24 months	2.482 (1.456-4.230)*	2.463 (1.359-4.465)*	2.514 (1.375-4.595)*
< 24 months	Ref	Ref	Ref
Wealth quintile			
Lowest	1.189 (0.525-2.693)	0.893 (0.366-2.178)	0.733 (0.292-1.839)
Second	0.896 (0.382-2.105)	0.615 (0.229-1.653)	0.563 (0.207-1.529)
Middle	1.955 (0.925-4.224)	0.926 (0.338-2.539)	0.761 (0.273-2.125)
Fourth	1.269 (0.566-2.845)	1.292 (0.553-3.018)	1.299 (0.553-3.049)
Highest	Ref	Ref	Ref
Place of delivery			
Elsewhere	2.100 (1.076-4.096)*	1.455 (0.676-3.132)	1.322 (0.601-2.905)
Health facility	Ref	Ref	Ref
Number of growth monitoring in the last six months			
≤2 times	0.408 (0.219-0.761)*	1.850 (0.937-3.650)	1.811 (0.911-3.602)
>2 times	Ref	Ref	Ref
Treatment of drinking water			
No	1.743 (1.011-3.006)*	1.484 (0.768-2.867)	1.331 (0.679-2.608)
Yes	Ref	Ref	Ref
Separate kitchen			
No	2.309 (1.367-3.897)*	2.398 (1.229-4.680) *	2.313 (1.179-4.540)*
Yes	Ref	Ref	Ref
BMI of mother			
Underweight	1.541 (0.671-3.542)	1.738 (0.696-4.336)	1.629 (0.646-4.111)
Overweight	0.891 (0.495-1.605)	0.905 (0.483-1.696)	0.966 (0.510-1.830)
Obese	0.164 (0.022-1.243)	0.175 (0.022-1.366)	0.166 (0.021-1.319)
Normal	Ref	Ref	Ref

* Significant at p <0.05

Ref = Reference category

Table 8. Unadjusted and adjusted OR and 95 percent CI for effect of women’s empowerment on wasting of children (n=402)

Characteristics	Unadjusted OR (95 % CI)	Adjusted OR without WEI (95 % CI)	Full model Adjusted OR (95 % CI)
Women empowerment index			
Low	17.097 (2.137-136.765)*		10.056 (1.127-89.693)*
Moderate	7.644 (0.996-58.654)		5.318 (0.657-43.029)
High	Ref		Ref
Occupation of mother			
Homemaker	2.805 (0.946-8.315)	2.694 (0.893-8.124)	1.708 (0.536-5.442)
Other than homemaker	Ref	Ref	Ref
Wealth quintile			
Lowest	4.333 (0.891-21.086)	4.185 (0.832-21.061)	3.245 (0.635-16.587)
Second	2.026 (0.360-11.386)	1.529 (0.262-8.935)	1.258 (0.211-7.493)
Middle	3.740 (0.752-18.589)	3.228 (0.618-16.484)	2.076 (0.371-11.624)
Fourth	2.566 (0.483-13.630)	2.195 (0.398-12.118)	2.186 (0.394-12.118)
Highest	Ref	Ref	Ref
Colostrum feeding			
No	3.184 (1.259-8.051)*	3.734 (1.400-9.961)*	3.438 (1.278-9.253)*
Yes	Ref	Ref	Ref
BMI of mother			
Underweight	0.782 (0.174-3.528)	0.726 (0.157-3.357)	0.662 (0.141-3.105)
Overweight	0.352 (0.102-1.217)	0.346 (0.096-1.249)	0.378 (0.103-1.390)
Obese	1.021 (0.223-4.661)	1.203 (0.250-5.782)	1.226 (0.245-6.149)
Normal	Ref	Ref	Ref

* Significant at p <0.05

Ref = Reference category

Those variables that exhibited significant association with under nutrition of children at 90 percent CI during bivariate analysis were further subjected to multivariate logistic regression. Multicollinearity test was done. None of them have tolerance <0.1 and Variance Inflation Factor (VIF) >10 . There was no problem of collinearity among independent variables as the highest VIF for underweight, stunting and wasting were 1.228, 1.169 and 1.199 respectively.

The result shows that in comparison to highly empowered mothers, low empowered mothers were five times (Adjusted OR=5.070; 95 percent CI: 1.885-13.638) (Table 5), three times (Adjusted OR=3.031; 95 percent CI: 1.281-7.141) (Table 6) and ten times (Adjusted OR=10.056; 95 percent CI: 1.127-89.693) (Table 7) more likely to have underweight, stunted and wasted children respectively.

5. Discussion

The study showed that 19.4 (95 percent CI: 15.5, 23.3) percent of children aged six to 59 months were stunted. It is lower than national level i.e.41 percent but close to urban area i.e. 26.7 percent (2). This may be due to proximity of the study area, Bhaktapur to capital city Kathmandu. The variation may also be due to difference in age groups. NDHS calculated stunting among under-five children while this study included only children from six to 59 months.

The study showed that low level of empowerment was positively associated with under-nutrition of children; underweight (Adjusted OR=5.070; 95 percent CI: 1.885-13.638), stunting (Adjusted OR=3.031; 95 percent CI: 1.281-7.141) and wasting (Adjusted OR=10.056; 95 percent CI: 1.127-89.693). These findings of the study are consistent with another study from Nepal, which found that women's empowerment was inversely related to anemia in children. Women at the low empowerment level had 1.8 times greater adjusted odds of having children with anemia than women at the high empowerment level (12).

In this study, higher mother's empowerment level which included decision-making was negatively associated with child under-nutrition which is consistent with the studies from Andhra Pradesh, India (18) and Afghanistan (19). A cross-sectional study conducted in Andhra Pradesh in rural India found that the ability to make household decisions was positively associated with child WAZ (AOR=0.17; 95 percent CI: 0.04-0.30) and WHZ (AOR=0.26; 95 percent CI: 0.16,0.42)(18). Likewise a study from Afghanistan found that a lack of maternal decision-making autonomy regarding obtaining health care for her children was positively associated with child underweight (AOR 1.46; 95 percent CI: -1.00, 2.14), stunting (AOR=1.38; 95 percent CI: - 1.01, 1.90) and wasting (AOR=1.67; 95 percent CI: - 1.00, 2.81) (19).

In this study, women empowerment that included involvement of women in household decision-making was statistically significant with nutritional status of children. It is consistent with a study from Karnataka (rural), which found maternal position within the household and

involvement in decision making to be protective for child WAZ (AOR= -0.12; 95 percent CI: -3.70)(9). By contrast, analysis of Bangladesh Demographic and Health Survey data did not reveal any statistically significant association between aggregated decision-making autonomy score (which combined autonomy regarding her own health care, child health care, large household purchases, daily household purchases and her freedom to visit relatives and friends) with underweight, stunting and wasting(20). The variation may be due to contextually of women's empowerment. In this study composite index of empowerment was used while the study from Bangladesh used only decision-making autonomy score.

The study showed that higher women's empowerment level, which included mother's membership in community group, was negatively associated with child undernutrition. The result is consistent with a cross-sectional study from Andhra Pradesh, which found larger social network (AOR=0.21) and more literate social networks (AOR= 0.56) to be associated with better Length-for-Age (LAZ) of 1-year-old children.(21) Another study from India found that high maternal cognitive social capital was associated with highest WAZ (Adjusted OR=0.19, CI: 0.00-0.39)(22).

In this study, higher women's empowerment level that included cash earning was negatively associated with child under-nutrition. The finding is consistent with study from study rural Karnataka, that showed a negative association between maternal employment and underweight in children aged 6-24 months of age (AOR=-0.12) (9).

In this study ownership of house and land that comprise part of women's empowerment, was negatively associated with child under-nutrition. The finding is consistent with study from Nepal which found that women who own land are significantly more likely to have the final say in household decisions (OR=1.48), a measure of empowerment. Similarly, children of mothers who own land are significantly less likely to be severely underweight (AOR=0.54) (23). On the other hand a study from Uganda found that land ownership exhibited no differentials with child stunting (24).

In this study, higher women's empowerment level that included level of education was negatively associated with child under-nutrition. The finding is consistent with study from Bolivia that found that maternal education is negatively associated with stunting of children (AOR=-0.197, Standard Error: 0.050)(25).

Since none of the available literature has used composite index of women empowerment, it is difficult to compare. However, the association between different domain of women's empowerment and child nutrition did not follow the same patterns in different countries studied.

This study is among a few studies conducted, which analyzed women's empowerment level using composite index and assessed association between women's empowerment and nutritional status of their children. However, this is not a nationally representative study, therefore cannot be generalized specially for rural setting

6. Conclusions

The study showed strong association between women's empowerment and nutrition status of their children even after adjusting for numerous demographic covariates. There was a five-fold increase in odds of underweight, a three-fold increase in odds of stunting, and a ten-fold increase in odds of wasting among children whose mothers had low empowerment status compared to high empowerment status.

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