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Effect of mother's education on malnutrition & academic performance among school going girls

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Abstract
It is fact that the Formal education of mothers directly transfers health knowledge to future mothers, the literacy and nutritional knowledge that girls acquire in school, which enhance their ability to recognize illness, malnutrition and seek treatment for their children. Keeping in view the above said, the present study was carried out in urban slums of Hajipur town to assess the effect of mother's education on the nutritional status and academic performance of the school-going girls. A total of 120 girls (Age group – 6 -12 years) who were residing in different slum areas of Hajipur town were selected for study through systematically random sampling. Data were collected from both primary and secondary sources. According to the data majority (48.33 percent) of the girls mothers have below high school education, while a large number of mothers (29.17 percent) were found illiterate. The present study showed that severe thinness of nutritional status was found more in girls of illiterate mothers (22.86 percent) in comparison of other qualification groups of mothers. Study found that mother's education has a strong co-relation with the nutritional status of the school going girls in respect of BMI-for-age, and Weight-for-age. Present study concluded that the mother's education had a strong impact on nutritional status and academic performance of school going girls.

Keywords: Nutritional status, academic performance, slum, school going girls

Introduction
The urban population is growing rapidly due to large migration of population from rural areas to cities for the hope of better life and employment, due to which the cities and towns are expanding very rapidly, due to which the basic needs of a city like Hajipur, is becoming a challenging task for the government or local administration to provide it. As a result large population of this migration lives in inhuman conditions without fulfilling any basic needs. Lack of necessary infrastructure for human such as safe drinking water, clean housing, sewage treatment and excreta disposal makes this population more vulnerable to infection which worsens the nutritional status of slum dwellers. Children living under such conditions are at especially high risk for health and nutritional problems.

There are three links through which education can influence child health. First, the formal education of mothers directly transfers health knowledge to future mothers. Second, the literacy and numeracy skills that woman acquire in school, which enhance their ability to recognize illness and seek treatment for their children. Additionally, they are better able to read medical instructions and implement treatments for childhood illness. Third, the number of schools increasing over the years makes women more receptive to modern medicine (Glewwe 1999). Nutritional intakes of the children were highly inadequate with respect to energy and protein and also in academic performance, with slum children being even lower than children of high income family. The determinants of under-nutrition and academic performance were the mother's education, per capita income (PCI) and energy consumption of the children (Avid EV 2002). The risk of malnutrition was significantly higher among children living in joint families, children whose mother's education was less than or equal to 6th standard and children with working mothers (Srivastava A. 2010). Mother's education level, wasting, socioeconomic status and family size were significantly associated with the nutritional status of the child (Mukharjee R 2006). Therefore, Keeping in view the above said, the present study was carried out in urban slums of Hajipur town to assess the effect of mother's education on the nutritional status and academic performance of the school-going girls.

Methodology

A total of 120 girls (Age group – 6 -12 years) who were residing in different slum areas of Hajipur town were selected for study through systematically random sampling. Data were collected from both primary and secondary sources. Anthropometric measurement (WHO Z-score) was used for nutritional status and records of academic achievement of previous year class were used for academic performance. Appropriate techniques were used for the data analysis.

Results & Discussion

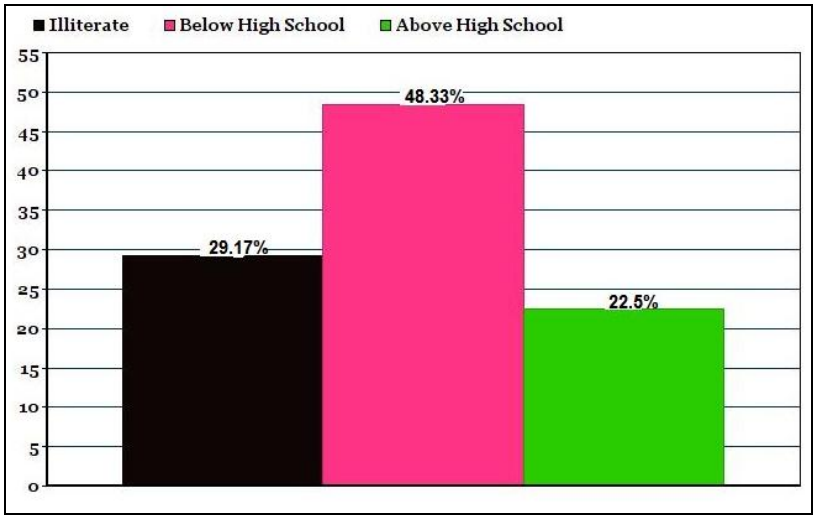

Fig 1: Mother Education of the school going girls

Figure-1 revealed the data on mother's education of school going girls such as illiterate, below High School and above high school. According to the data majority (48.33 percent) of the girls mothers have below high school education, while a large number of mothers (29.17 percent) were found illiterate. Only 22.5 percent of the mother's had above high school education.

Table 1: Mother education and Nutritional Status of school going girls According to BMI-for-age

Sr. No.	BMI-for-age	Mother's education						Chi square	P value
		Illiterate (n=35)		Below High school (n=58)		Above High school (n=27)			
		f	%	f	%	f	%		
1	**Severe Thinness**							17.0225	.029875*
	< -3SD	08	22.86	10	17.24	01	03.70		
2	**Thinness**								
	≥ -3SD & <-2SD	12	34.28	21	36.21	03	11.11		
3	**Normal**								
	> -2SD & < +1SD	11	31.43	19	32.76	13	48.15		
4	**Overweight**								
	> +1SD & ≤ +2SD	03	08.57	05	08.62	05	18.52		
5	**Obesity** > + 2SD	01	02.86	03	05.17	05	18.52		

Significance Level = 0.05 * significant at $p < .05$

The mother's education wise distribution of school going girls for their nutritional status is shown in table -1. The present study showed that severe thinness of nutritional status was found more in girls of illiterate mothers (22.86 percent) in comparison of other qualification groups of mothers. It was also found that the overweight and obesity were found more in those girls whose mothers had above high school qualification. In mothers of below high school qualification thinness was found more (36.21 percent) in her daughter. Near about half (48.15 percent) of the girls whose mother had above high school qualification had normal BMI. Significance association was observed between mother's education and nutritional status of school going girls according to BMI-for-age (The chi-square statistic 17.0225 and p-value .029875)

Table 2: Mother education and Nutritional Status of school going girls According to Weight-for-age

Sr. No.	Weight-for-age	Mother's education						Chi square	P value
		Illiterate (n=35)		Below High school (n=58)		Above High school (n=27)			
		f	%	f	%	f	%		
1	**Severe underweight**							20.5028	.002253*
	< -3SD	10	28.57	08	13.79	01	03.70		
2	**Moderate underweight**								
	≥ -3SD & < -2SD	11	31.43	14	24.14	03	11.11		
3	**Mild underweight**								
	> -2SD & < -1SD	09	25.71	14	24.14	05	18.52		
4	**Normal**	05	14.26	22	37.93	18	66.67		

Significance Level = 0.05 * significant at $p < .05$

The nutritional status (Weight-for-age) are presented in -2 the percentage wise distribution of school going girls revealed that in illiterate mothers moderate underweight girls were found more in comparison of other qualification groups of mothers. Normal weight for age found more in those girls whose mother's had more than high school qualification. After analysis of data base factors it was found that the underweight seem more in girls of illiterate mothers. The chi-square statistic 20.5028 and p-value-.002253 showed the strong correlation between nutritional status of school going girls (weight-for-age) with her mother's education.

Table-3: Mother education and Nutritional Status of school going girls According to Height-for-age

Sr. No.	Height-for-age	Mother's education						Chi square	P value
		Illiterate (n=35)		Below High school (n=58)		Above High school (n=27)			
		f	%	f	%	f	%		
1	**Severe Stunting**							1.7406	.941943
	< -3SD	01	02.86	02	03.45	01	03.70		
2	**Moderate Stunting**								
	≥ -3SD & < -2SD	02	05.71	03	05.17	01	03.70		
3	**Mild Stunting**								
	> -2SD & < -1SD	06	17.14	05	08.62	03	11.11		
4	**Normal**	26	74.29	48	82.75	22	81.48		

Significance Level = 0.05 * significant at $p < .05$

Girls were categorized into their mother's education on the basis of their height-for-age and results obtained are presented in table – 3 and it was found that the majority of the girls were found normal height-for-age in all the three groups of mother's education i.e., 74.29 percent in illiterate mothers, 82.75 percent in Below high school and 81.48 percent in above high school. Severe stunting and moderate stunting found negligible in all the three groups of mother's education. Significance relation was not observed between nutritional status of the school going girls (height for age) with her mother's education (chi-square statistic 1.7406 and p-value-.941943).

Table 4: Mother education and Academic performance of school going girls

Sr. No.	Height-for-age	Mother's education						Chi square	P value
		Illiterate (n=35)		Below High school (n=58)		Above High school (n=27)			
		f	%	f	%	f	%		
1	Grade A to A+	02	05.71	11	18.96	12	44.44	22.1653	.00113*
2	Grade B to B+	12	34.29	31	53.45	07	25.93		
3	Grade C to C+	15	42.86	12	20.69	05	18.52		
4	Grade D	06	17.14	04	06.90	03	11.11		

Significance Level = 0.05 * significant at $p < .05$

Table-4 revealed the data on effect of mother's education on academic performance of school going girls. According to the data Grade A to A+ was found more (44.44 percent) in girls whose mother's got more than high school education, while in Below high school qualification of mothers grade A to A+ was found only in 18.96 percent. Grade C, and D were found more in girls of illiterate mothers. The chi-square statistic 22.1653 and p-value-.00113 showed the strong correlation between academic performances of school going girls with her mother's education.

Conclusion

Nutritional status is a key indicator for all round development of the school going girls. The mother's education of girls has a special impact on their academic performance and nutritional status. Study finding indicates that the majority (48.33) of the mothers had below high school education while a large number of them were illiterate. In present study Significance relationship was observed between mother's educations with academic performance of school going girls. Study found that mother's education has a strong co-relation with the nutritional status of the school going girls in respect of BMI-for-age, and Weight-for-age. In present study height-for-age of the school going girls was not significant associated with her mother's education. Present study concluded that the mother's education had a strong impact on nutritional status and academic performance of school going girls.

Recommendation

Government should be organized training programs related to parenting style and nutritional education especially for women in slums area.

References

1. Anderson N. Slums and urbanization. Popular Prakashan, Mumbai. 1990, 38-39.
2. Bains P, Prabha M, Bharti B. Comparative Study of Public Vs Private School Children Regarding their Knowledge about Vitamin A. International Workshop on Micronutrients and Child Health, AIIMS. 2009;105:21.
3. Chitra U and Reddy CR. The role of breakfast in nutrient intake of urban school children, Public Health Nutrition. 2006;10(1):55–58.
4. Mall Ranajana. Performance of Mid-Day Meal (MDM) on Nutritional Status of School Going Children in Muzaffarpur Town of Bihar. International Journal of Home Science. 2017;3(3):79-82.
5. Mukherjee R, Chaturvedi S, Bhalwar R. Determinants of Nutritional status of School children Medical Journal of Armed Forces Institute. 2008;64:227-31.
6. NIPCCD. Reference material, consultation meet on strategies for prevention of malnutrition and micronutrient deficiencies. 2007, 1-74.
7. Oseri A, Houser R, Bulusu S, Joshi T, Jamer D. Nutritional status of primary schoolchildren in Garhwali Himalayan villages of India. Food Nutr Bull. 2010 Jun;3(2):221-33.

8. Popkin BM, Horton S Kim, SW *et al*. Trends in diet, nutritional status, and diet-related non-communicable diseases in China and India: the economic costs of the nutrition transition. Nutrition Review. 2001;59(12):379-390.
9. Prasad R, Zaidi A, Prasad R. Nutritional Status and Cognitive Function of 7-10 Years Old School going Children of Allahabad District. Proceedings of International Workshop on Micronutrients and Child Health, AIIMS. 2009;519:63.
10. Srivastva A, Mahmood SE, Srivastava PM, Shotriya VP, Kumar B. Nutritional status of school-age-children-A scenario of urban slums in India. Archives of Public Health. 2012;70:1-8.