

Household food insecurity and its impact on children health in rural Faisalabad, Pakistan

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Objective: To investigate the impact of household food insecurity on child health in our area.

Methodology: This descriptive study was conducted in Faisalabad. Multistage sampling technique was used for data collection and comprised of 120 household respondents who had at least one child less than five year age. Data were collected through an interview. The data were analyzed through SPSS.

Results: A significant and strong association between socio-economic status of the respondents and impact of food insecurity on physiological deficiencies and abnormal health of their children was seen. A total of 93.3% respondents had opinion that poverty was a main

cause of food insecurity and had opinion that food insecurity affected the normal growth of height in their children, while 94.2% of them though that food insecurity affected the normal growth of weight. 92.5% thought that the food insecurity affected the activeness of child.

Conclusion: Household food insecurity negatively affected the children's physical growth and the children from poor families were suffering malnutrition. It is suggested that government and NGOs should take necessary steps for kinder the awareness about malnutrition in children. (Rawal Med J 201;41:373-376)

Keywords: Food insecurity, child health, child nutrition, mental and physical deficiencies.

INTRODUCTION

Food insecurity is increasing in the world where 925 million people are undernourished. Out of them, about 900 million people are living in developing countries and more than 70% live in rural areas and depend directly or indirectly on agriculture for their living.¹ Food insecurity is defined as limited or uncertain availability of nutritionally adequate and safe foods.² Rates of food insecurity are substantially higher for those households with incomes below the federal poverty line.³ Despite the fact that Pakistan is one of the largest producers of many agricultural commodities of the world, and having the status of food self sufficiency, 26% of the population is undernourished.¹ According to the National Nutrition Survey,⁴ 33% young children are still counted as underweight due to the lack of nutritious and access to food. Food insecurity highly affects the children's growth and nutrition. In 2001, it was noted that malnutrition caused 54% deaths in children living in developing countries.⁵ WHO labels the emergency situation on those countries who shows average or above 15% malnutrition

inhabitants.⁶ In Pakistan, almost one third children under the age of 5 are underweight, 53.38% of the children are stunted and 11.52% children reported as wasted.⁷

In Pakistan, malnutrition has been shown to be associated with poverty and illiteracy.⁸ Number of studies from Pakistan report the prevalence of malnutrition in children less than five year of age.^{9,10} This high prevalence in Pakistan is associated with stunted growth and high mortality rate.^{11, 12} In Pakistan, the presence of iron deficiency (anemia) and vitamin A deficiency remains widespread in the country due to the lack of proper and nutritious food.¹³ Freedom from hunger and malnutrition is a basic human right. Food crises can cause of many social, physical and psychological problems.¹⁴ Food security problem is mainly related to poverty level. As much as a country is poor, definitely problem of food security will persistently occur.¹⁵ Groups who are disproportionately represented among the food insecure include poor families, working class, young children, low-income women, ethnic minorities, the elderly, homeless individuals and

children.¹⁶ The aim of this study was to investigate the impact of household food insecurity on child health in Faisalabad area.

METHODOLOGY

The universe of the present study was only rural area of district Faisalabad, Pakistan. The respondents were household heads having at least one child less than age five years. Data were collected through multistage sampling techniques. At first stage, two rural tehsils were selected randomly named Jaranwala and Chak Jhumara through simple randomly sampling technique. At second stage, two union councils from each town were selected through simple random sampling technique. At third stage, two villages were selected from each union council through simple random sampling technique. At last stage, 15 respondents (household heads) were

selected through Purposive sampling technique from selected villages. The sample size was consisted of 120 respondents. Pre-testing was done to examine the work ability of the interview schedule. Data were collected through an was analyzed through SPSS software.

RESULTS

Large majority of the respondents were in the opinion that weak food based policies of the government, weak administration, over population, high prices of foods and poverty are the main cause of food insecurity among the children (Table). 90.0% of the respondents had opinion about the overpopulation was a main cause of food insecurity and 93.3% of the respondents had opinion that the poverty is a main cause of food insecurity.

Table. Distribution of the respondents according to their opinion about the main causes of food insecurity, impacts and child health deficiencies due to food insecurity.

No. 1	Causes of food insecurity	To a great extent		To some extent		Not at all	
		Number	%	Number	%	Number	%
i.	Weak food based policies	109	90.8	10	8.3	1	0.8
ii.	Weak administration	87	72.5	33	27.5	0	0.0
iii.	Lack of awareness of food storage and process techniques	38	31.7	42	35.0	40	33.3
iv.	Overpopulation	108	90.0	8	6.7	4	3.3
v.	Poverty	112	93.3	4	3.3	4	3.3
vi.	Natural disasters	41	34.2	44	36.7	35	29.2
vii.	High prices	101	84.2	14	11.7	5	4.1
2	Impacts of household food insecurity on child social and educational activities						
i.	Activeness	97	80.8	23	19.2	0	0.0
ii.	Educational activities affected	88	73.3	17	14.2	15	12.5
iii.	Social dissatisfaction	104	86.7	16	13.3	0	0.0
3	Child health deficiencies due to food insecurity						
i.	Lack of Immunity	94	78.3	11	9.2	15	12.5
ii.	Anemic	90	75.0	11	9.2	19	15.8
iii.	Lack of physical growth	64	53.3	42	35.0	14	11.7
iv.	Stomach aches	35	29.2	39	32.5	46	38.3
v.	Ice hand and feet	46	38.3	28	23.3	46	38.3

Part 2 of the table shows the impacts of household food insecurity on child's social and educational activities. Data shows that 80.8% respondents great extent and 19.2% were some extent agreed that due

to the food insecurity psychological disorder was found in children. A vast majority i.e., 86.7% of the respondents thought that household food insecurity influence on social satisfaction.

Part 3 of the table indicates child health deficiencies due to the food insecurity. Data exhibited that majority of the respondents were in the opinion that due to the food insecurity children face the lack of immunity, anemic, stomach aches and lack of physical growth.

DISCUSSION

Child nutritional status is a good indicator of the overall wellbeing of a society or nation.¹⁷ In Pakistan, food security remains a dream for currently about 42 million people are food insecure and children are especially vulnerable group those highly affect due to the malnutrition. The fact is that about one third of the population does not have access to food.¹⁸ Our study confirms that the major causes of food insecurity related to poverty, weak government policies, high food price and rapid population growth.¹⁹ Weak government policies, rapid population growth, high food prices and poverty are the main causes of food insecurity in poor countries. Ammir²⁰ from Pakistan also pointed out that economic access to food is a dominant problem; people consume and buy less food if the prices of food arise suddenly.

A study from Africa reported that soaring food prices and food insurgence were the major causes of the prevailing food crisis and insecurity.²¹ Hssain and Akram²² stated that population of Pakistan is increasing with alarming rate. Increase in population plays main role in food security problem. Increasing number of poor people in cities makes, food insecurity, extreme pressing social and political issues. Food security is especially important for children, because their nutrition affects not only their current health, but also their future health and well being.

Bashir et al²³ pointed out that better economic status is predominantly considered as determinant and a solution to food insecurity because if the income goes down the availability and access to enough, nutritious and safe would be difficult. In a study from Nigeria, Maza et al²⁴ found that better education level is the best coping strategy to overcome the household food insecurity and 59% food insecurity decreased due to better education in Nigeria. Similarly, in the USA, Kaiser et al²⁵ found

that due to higher education level of mothers within households, the chances of household food insecurity were reduced by 29%.

CONCLUSION

Majority of the respondents agreed that household food insecurity affected the household condition. Poverty leads to poor health status of children. Poor households cannot give balanced and nutritionally adequate diet for children. Respondents agreed that household food insecurity influences child health, intellectual improvement, educational activities and social satisfaction. Household food is insecurity cause of many diseases and physical deficiencies in the children like stunted, wasted and under weight. It can cause of psychological deficiencies like inferiority, lack of confidence and aggressive behavior.

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REFERENCES

1. The state of food insecurity in the world: addressing food insecurity in protracted crisis. Country rank in the World, by commodity- Food and Agricultural Organization of the United Nations, Statistical Division. 2011. Accessed 05 Jan, 2016. Available from: <http://faostat.org/site/339/default.aspx>
2. Cook JT1, Frank DA, Levenson SM, Neault NB, Heeren TC, Black MM. Child Food Insecurity Increases Risks Posed by Household Food Insecurity to Young Children's Health. *J Nutr* 2009;136:1073-6.
3. Nord M, Andrews M, Carlson S. Household food security in the United States, 2004. A report from the Economic Research Service, 11. Retrieved May 1, 2006.
4. National Nutrition Survey NNS. Planning Commission, Planning and Development Division. Government of Pakistan. 2011.
5. Blossner M, de Onis M. Malnutrition: quantifying the health impactat national and local levels. Geneva, Switzerland: World Health Organization; 2005. Environmental Burden of Disease Series. (Online) 2011 (Cited 2011 Sep 25). Available from URL: <http://whqlibdoc.who.int/publications/>

- 2005/9241591870.pdf.
6. Malik S. Hunger and poverty: Food insecurity major cause of concern for Pakistan. Published in The Express Tribune, October 17th, 2014. <http://tribune.com.pk/story/776804/hunger-and-poverty-food-insecurity-major-cause-of-concern-for-pakistan/>
 7. Finlay JE, Ozaltin E, Canning D. The association of maternal age with infant mortality, child anthropometric failure, diarrhoea and anaemia for first births: evidence from 55 low- and middle-income countries. *BMJ Open* 2011;1:e000226.
 8. Hirani SA. Malnutrition in young Pakistani children. *J Ayub Med Coll Abbottabad* 2012; 24:150-3.
 9. Ahmed T, Hossain M, Mahfuz M, Choudhury N, Hossain MM, Bhandari N, et al. Severe acute malnutrition in Asia. *Food Nutr Bull* 2014;35:S14-26.
 10. Bhutta ZA. Addressing severe acute malnutrition where it matters. *Lancet* 2009;374:94-6.
 11. Aurangzeb B, Whitten KE, Harrison B, Mitchell M, Kepreotes H, Sidler M, et al. Prevalence of malnutrition and risk of under-nutrition in hospitalized children. *Clin Nutr* 2012;31:35-40.
 12. Bhutta ZA, Nizami S, Thobani S, Issani Z. Risk factors for mortality among hospitalized children with persistent diarrhoea in Pakistan. *J Trop Pediatr* 1997;43:330-6.
 13. Wasaf S. Food insecurity affecting 60% of women and children, pp 1. Published in The Express Tribune, September 18th, 2011.
 14. Akmal M. An Overview of Food and Nutrition Situation in Pakistan. 2003. pp 1-2. Available at Web: www.aiou.edu.pk/FoodSite/DrAkmalPresentation. Accessed Date 12 January, 2011.
 15. Economic Survey of Pakistan, Ministry of Finance, Finance Division, Economic Advisor's Wing, Islamabad. 2014-15
 16. Rose D. Economic determinants and dietary consequences of food insecurity in the United States. *J Nutr* 1999;129:517-20.
 17. Ansari BN, Rahbar MH, Bhutta ZA, Badruddin SH. Child's gender and household food insecurity are associated with stunting among young Pakistani children residing in urban squatter settlements. *Food Nutr Bull* 2006;27:114-27.
 18. Ahmad S, Javed MS, Ghafoor A. Estimation of Food Security Situation at Household Level in Rural Areas of Punjab. *Int J Agri Biol* 2004;6:483-87.
 19. Causes of Food Insecurity in African and Other Third World Countries. <http://www.harvesthelp.org.uk/causes-of-food-insecurity-in-african-and-other-third-world-countries.html>
 20. Amir RM, Babar S, Tanvir A, Zafar MI. Analysis of Household Food Security Concerns and Coping Strategies of Small Farmers In Northwestern Highlands of Pakistan. *Pak J Agri Sci* 2013;50:505-10.
 21. Sasson A. Food security for Africa: an urgent global challenge. *Agriculture Food Security* 2012;1:2.
 22. Hussain Z, Akram W. Persistent Food Insecurity from Policy Failures in Pakistan. *Pak Development Rev* 2008;47:817-34.
 23. Bashir MK, Naeem MK, Niazi SAK. Rural and peri-urban food security: a case of district Faisalabad of Pakistan. *World Applied Sci J* 2010;9:403-41.
 24. Maza PS, Umeh JC, Helsen J, Adejobi AO. Determinants and Measurement of Food Insecurity in Nigeria: Some Empirical Policy Guide. Presented at international association of agricultural economists annual meeting, August 12-18, Queensland. 2006. Australia, online available at <http://ageconsearch.umn.edu/bitstream/25357/1/pp060591.pdf>
 25. Kaiser LL, Quiñonez HM, Townsend M. Food insecurity and food supplies in Latino households with young children. *J Nutr Edu Behav* 2003;35:148-53.