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## Research Article

### HEALTH DIFFERENTIALS AMONG CHILDREN IN LOW AND HIGH INCOME STRATA

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#### ABSTRACT

Children constituted one of the most vulnerable sections of the society. The relationships between socioeconomic status (SES) of individuals and their health were well documented. There was consistent evidence that the socio economically better off individuals do better on most measures of health status including mortality, morbidity, malnutrition and health care utilization. This inverse association has been detected between health outcomes and a matrix of SES indicators based on data collected at the individual, household and community levels, including the traditional education, occupation and income measures, information on household possessions and level of community development. Based on a sample of 150 child respondents the study had traced health differentials among children in low and high income strata. 50 percent sample from upper income strata and 50 percent from lower income strata were taken. Srinagar district of Jammu and Kashmir was selected as universe of the study and survey method was used for data collection. The findings revealed that the children belonging to low income strata had poor health, fall ill frequently, had less doctor consultations at the time of illness and consumed less nutritious diet. A significant number of children (19.34 percent) were anaemic and underweight and belonged to low income households as compared to only 6.67 percent children from upper income households.

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#### INTRODUCTION

Article 1 of UNCRC (United Nation's Convention on the Rights of the Child) reveals "A child means every human being below the age of 18 years unless, under the law applicable to the child, majority is attained earlier"<sup>1</sup>. The journey in the life cycle of a child involves the critical components of child survival, child development and child protection. Child survival entails their basic right of being born in a safe and non-discriminatory environment and grows through the formative years of life in a healthy and dignified way. To be well nourished and well developed is one of the rights of childhood. A healthy and nutritionally well-fed population is indispensable for economic growth and development<sup>2</sup>. Health and nutritional status affect the capacity to learn, which in turn determines productivity and economic growth.

Health has been called 'an abstract concept' that most people find difficult to define. Health is a metaphor for well-being. To be healthy means to be of sound mind and body; to be integrated; to be whole. Over the time and across different societies, influential theorists have emphasized that health consists of balance, of being cantered. Seedhouse describes health as the 'foundations for achievement' and as the means by which we achieve our potential, both as individuals and as

groups. Seedhouse therefore describes a person's optimum state of health as being 'equivalent to the set of conditions that enable a person to work to fulfil her realistic chosen and biological potentials'<sup>3</sup>. In medical sociological analysis the inherent starting point is that health and illness are embedded not only in the biological but equally in the social context. The significance of social and cultural divisions to health related outcomes was put forward in sociology by Emile Durkheim, who viewed suicide as a "social fact," that is, as dependent on the social and cultural environment and needing sociological explanation within and between countries<sup>4</sup>. Thus, health can be seen as a positive attribute and a condition for achievement. Health of an individual determines his ability to realize his or her life goals. Also, health is not only a biological or natural condition but also social one. The health of a population is influenced by social factors and how health is distributed within the population.

WHO's 1948 Constitution clearly acknowledged the impact of social and political conditions on health, and the need for collaboration with sectors such as agriculture, education, housing and social welfare to achieve health gains<sup>5</sup>. Hence, the World Health Organization developed a more holistic concept of health as 'a state of complete physical, mental and social well-being and not merely the absence of disease and

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infirmity. The enjoyment of the highest attainable standard of health is one of the fundamental right of every human being, without distinction of race, religion, political beliefs or economic and social conditions”<sup>6</sup>. Thus, rather than restricting health to an absence of illness, health was understood in terms of the presence of absolute and positive qualities. Social, psychological, physical, economic and political aspects were incorporated in the definition of health, and regarded as components of paramount importance for health and well-being. The World Health Organization’s concept of health defined health and illness to be multi-causal through its inclusion of psychological and social criteria.

The relationships between socioeconomic status (SES) of individuals and their health are well documented in the international epidemiological, economic and sociological literature and from a variety of perspectives. There is consistent evidence that the socio-economically better off individuals do better on most measures of health status including mortality, morbidity, malnutrition and health care utilization. This inverse association has been detected between health outcomes and a matrix of SES indicators based on data collected at the individual, household and community levels, including the traditional education, occupation and income measures, information on household possessions and level of community development<sup>7</sup>. Family income, education, and neighbourhood resources and other social and economic factors affect health at every stage of life, but the effects on young children are particularly dramatic. While all parents want the best for their children, not all parents have the same resources to help their children grow up healthy. Parents’ education and income levels can create or limit their opportunities to provide their children with nurturing and stimulating environments and to adopt healthy behaviours for their children to model. Although effects of early childhood interventions are greatest for children who are at greatest social and economic disadvantage, children in families of all socioeconomic levels experience benefits from early childhood programs that translate into improved development and health<sup>8</sup>. Hence, research on the effects of socioeconomic well-being on health is important for policy makers especially in developing countries, where limited resources make it crucial to use existing health care resources to the best advantage.

An estimated 250 million children live in poverty, over 90 percent of who live in the less developed countries of the world<sup>9</sup>. The Human Development Index (HDI), developed by the United Nations Development Programme (UNDP), is the best index developed so far which takes account of income distribution within countries and other variables related to socio economic status (SES), such as female literacy<sup>10</sup>. At the extremes of the developed and less developed worlds, the relationship between Gross National Product (GNP) and child health indicators is clear and strong. The poorest countries in terms of per capita GNP all show far higher levels of adverse child health outcomes than the richest. At this crude level, the relationship between the wealth of a country and the health status of its children is beyond dispute<sup>11</sup>. The same is true for developing countries like India. The situation in J&K state is worse as compared to national level as the health status of the people in Kashmir has not been able to keep pace with the national level of achievements. The conflict situation of the last

few decades has also worsened the condition. Consequently, a considerable segment of population is living below the poverty line, with poor infrastructure. The main complaints of health are headache, blurring of vision, backache, abdominal pain, limb pains and respiratory tract infection.<sup>12</sup>

## LITERATURE REVIEW

Numerous studies have been conducted on the relationship between socioeconomic status (SES) of individuals and their health status. Cockerham, W. C. (2012) in his work titled, “Social Causes of Health and Disease” argues that social factors have a direct causal effect on physical health and illness. There is plenty of evidence that the social context can shape an individual or population’s risk of exposure to disease. It can shape an individual’s susceptibility to developing the disease and can affect the course and outcome of diseases. The evidence presented by the author shows that this is true regardless of whether the disease is infectious, long-term, degenerative or genetic. In this work Cockerham uses a plethora of updated evidence from the US and UK to make the argument that biological entities (viruses, cancers etc.) work in conjunction with social conditions to create the environment in which disease occurs. Taking the example of diabetes, he shows that diabetes rates are soaring in the US and that the growth rate is socially patterned with higher rates amongst the poor, blacks and Hispanics. While genetics plays a critical role, the acceleration of new cases cannot be explained by genetics alone. Poverty linked social behaviours (around diet, exercise and access to and use of medical care) have been identified as the culprits<sup>13</sup>. Spencer, N. (2000) in his work, “Poverty and child health” has brought together evidence to find out the relationship between poverty and child health from a wide variety of sources, national, international and historical. The evidence confirms the link between poverty and low socio-economic status with child health in all settings and all historical periods. According to the author, an estimated 250 million children live in poverty, over 90 percent of who live in the less developed countries of the world. At the extremes of the developed and less developed worlds, the relationship between Gross National Product (GNP) and child health indicators is clear and strong. The poorest countries in terms of per capita GNP all show far higher levels of adverse child health outcomes than the richest<sup>14</sup>. Medhi, G.K. *et al* (2006) assess the growth and nutritional status of children working in tea gardens of Assam. The study compares the nutritional status of tea garden child labourers to National Centre for Health Statistics (NCHS) standard and affluent Indian children in order to find out whether low socio-economic status of tea garden workers has an impact on their nutritional status. Tea garden workers are socio-economically lagging behind and mostly illiterate. The study uses anthropometric measurements to assess the nutritional status of the children which is the most reliable source for measuring nutritional status. Compared to NCHS standard and affluent Indian children, the mean weight and height were found to be much inferior at all ages. In the age group of 6-8 Years, wasting was found among 20.4 percent male children and 22.3 percent female children. Stunting was found among 46.4 percent male and 48.8 percent female children while 52.5 percent male and 50.4 percent female children were found underweight<sup>15</sup>. Ministry of statistics and Programme Implementation, Government of India (2012) in its

report titled, "Children in India 2012-A Statistical Appraisal" presents a consolidated and updated statistics on status of children in India. It analyses the conditions of children in the fields of child survival, child development and child protection. The report highlights that in India 48 percent of children under age five years are stunted (too short for their age), 19.8 percent of children below five years in the country are wasted and 43 percent of children under age five years are underweight for their age. The underlying causes of malnutrition are highlighted in the report as it takes into account the revelation of National Family Health Surveys (NFHS) that in India malnutrition is not the result of a single cause; the problem is multifaceted, the causes acting singly or in combination with other complex factors like poverty, purchasing power, health care, ignorance on nutrition and health education, female illiteracy, social convention etc. The results clearly show that the percentage of underweight children in the lowest wealth index category (56.6 percent) is nearly 3 times higher than that in the highest wealth index category (19.7 percent). About 76.4 percent of children (6-59 months) in the lowest wealth index are suffering from anaemia whereas 56.2 percent children of the highest wealth index are suffering from anaemia<sup>16</sup>. United Nations Children's Fund (UNICEF) (2011) in its report titled, "The Situation of Children in India-A Profile (2011)" presents a detailed account of the overall condition of Indian children in terms of health, hygiene, education and protection. This report of UNICEF outlines the evidence based on national data collected through National Family Health Surveys which establishes that approximately 100 million children are in the poorest wealth quintile. A child born in the poorest household is three times as likely to die before its fifth birthday as compared to a child born in the richest household<sup>17</sup>.

## RESEARCH METHODOLOGY

### Universe of the study

The universe of the study is district Srinagar. AS per census (2011) of Jammu and Kashmir child population (0-6 years) is approximately 12 percent of the total population, males constituted 53.0 percent and females 47.0 percent. Child population of Srinagar between the age group of 7-18 years is 486,552 approximately.

### Sampling Plan and Design of the Study

The present study is based on sample of 150 children (75 boys and 75 girls) in the age group of 6-16 years taken from different areas of Srinagar district. Stratified random sampling technique was used for the collection of sample in which population was stratified on the basis of age, sex, area, and household income. The data was collected from 10 areas of North and 10 areas of South Tehsil. This study has a descriptive research design and is conducted in a single situation (S1) and time period (S2).

### Sources of information

Data for the study is based on both primary as well as secondary sources. The secondary sources include official documents, schemes, government statistics, census data, books, Journals, non research papers and studies carried by various Non-governmental organizations, newspaper reports etc. For generating further data and analysing the impact of various

socio-economic variables on health status of children, an extensive household survey was conducted.

### Objectives of Study

1. To trace the link between socio-economic status of the households and the health status of children,
2. to assess the impact of household income on nutritional/dietary intake of children,
3. to examine the role of household income in seeking health care practices for children.

## RESULTS AND DISCUSSIONS

The findings of the field study are as under:

For the purpose of the present study, income of households was classified into four categories like a) Below Rs 5000, b) Rs 5,001-10,000, c) Rs 10,001-Rs 15,000, and d) Rs 15,001 and above. In this context, the respondents were asked to reveal their income group which is presented in the table below:

**Table 1** Household Income

Income group	Boys		Girls		Total responses	
	No.	%	No.	%	No.	%
Below Rs 5000	3	2.00	2	1.33	5	3.33
Rs 5,001-10,000	15	10.00	15	10.00	30	20.00
Rs 10,001-Rs 15,000	20	13.33	20	13.33	40	26.66
Rs 15,001 and above	37	24.66	38	25.33	75	50.00
Total	75	50.00	75	50.00	150	100.0

Source: Field Data for health status of children, 2014 in Srinagar District of Kashmir Valley

For the present study, 50 percent respondents were selected from households having monthly income below Rs 15000, while remaining 50 percent were taken from households having monthly income above Rs 15001. This was deliberately done for equal comparison of health status among children in varying income groups. The above table reveals that the majority (50 percent) children (24.66 percent boys and 25.33 percent girls) belong to households with income above Rs 15,001 and 26.66 percent children (13.33 percent boys and 13.33 percent girls) belong to income group of Rs10001 to Rs 15,000. Another 10 percent boys and 10 percent girls fell in the income category of Rs 5001-10,000 per month. Only 2 percent boys and 1.33 percent girls belong to Below Rs 5000 monthly income households.

There is a close relation between health of children and household income. Table 2 presents the relation between health of children and household income.

Table 2 reveals that children belonging to above Rs 15,001 income group tend to have better health as compared to children belonging to lower income groups. The majority (30 percent) children belonging to above Rs 15,001 income households have good health as compared to children (22.66 percent) from below Rs 15,000 income households. Among children having poor health, majority (10.66 percent) children were found in below Rs 15,000 income households as compared to children (5.33 percent) found in above Rs 15,001 income households.

Hence relationship between income and illness episodes has been seen in the table below:

**Table 2** Relation of health of children with income status of family

Classification of health	Below Rs 5000		Rs 5001-10,000		Rs 10,001-Rs 15,000		Total Up to Rs 15,000		Rs 15,001 and above	
	No.	%	No.	%	No.	%	No.	%	No.	%
Poor health	2	1.33	6	4.00	8	5.33	16	10.66	8	5.33
Fair	2	1.33	10	6.66	9	6.00	21	14.00	12	8.00
Good	1	0.66	13	8.66	20	13.33	34	22.66	45	30.00
Excellent	0	0.00	1	0.66	3	2.00	4	2.66	10	6.66
Total	5	3.33	30	20.00	40	26.66	75	50.00	75	50.00

Source: Field Data for health status of children, 2014 in Srinagar District of Kashmir Valley

**Table 3** Relation of income with illness episodes among children

Health indicators	Below Rs 5000		Rs 5001-10,000		10,001-Rs 15,000		Total Up to Rs 15,000		Rs 15,000 and above	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Frequency of illness</b>										
Frequently ill	2	1.33	6	4.00	8	5.33	16	10.66	8	5.33
Frequently not ill	3	2.00	24	16.00	32	21.33	59	39.33	67	44.66
Total	5	3.33	30	20.00	40	26.66	75	50.00	75	50.00
<b>Duration of illness</b>										
Once or more in a week	1	0.66	1	0.66	2	1.33	4	2.66	1	0.66
Once or more in a month	1	0.66	5	3.33	6	4.00	12	8.00	7	4.66
Once or more in a year	3	2.00	23	15.33	29	19.33	55	36.66	57	38.00
Seldom falls ill	0	0.00	1	0.66	3	2.00	4	2.66	10	6.66
Total	5	3.33	30	20.00	40	26.66	75	50.00	75	50.00
<b>Time taken to recover from illness</b>										
Recovers quickly without medication	0	0.00	1	0.66	3	2.00	4	2.66	10	6.66
Recovers quickly only after medication	3	2.00	22	14.66	27	18.00	52	34.66	50	33.33
Takes time to recover without medication	0	0.00	1	0.66	2	1.33	3	2.00	7	4.66
Takes time to recover even after medication	2	1.33	6	4.00	8	5.33	16	10.66	8	5.33
Total	5	3.33	30	20.00	40	26.66	75	50.00	75	50.00

Source: Field Data for health status of children, 2014 in Srinagar District of Kashmir Valley

**Table 4** Relation of household income with doctor consultations

Responses	Below Rs 5000		Rs 5001-10,000		10,001-Rs 15,000		Total Up to Rs 15,000		Rs 15,001 and above	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Take child to doctor when ill</b>										
Yes	1	0.66	12	8.00	32	21.33	45	30.00	70	46.66
No	4	2.66	18	12.00	8	5.33	30	20.00	5	3.33
Total	5	3.33	30	20.00	40	26.66	75	50.00	75	50.00
<b>Reason for no treatment</b>										
Poverty	4	11.42	18	51.42	4	11.42	26	74.28	0	0.00
Treatment not necessary	0	0.00	0	0.00	2	5.71	2	5.71	1	2.85
Health facility too far	0	0.00	0	0.00	1	2.85	1	2.85	0	0.00
Any other	0	0.00	0	0.00	1	2.85	1	2.85	4	11.42
Total	4	11.42	18	51.42	8	22.85	30	85.71	5	14.28

Source: Field Data for health status of children, 2014 in Srinagar District of Kashmir Valley

Table 3 depicts that children belonging to higher income households (44.66 percent) fall ill less frequently as compared to children from lower income households (39.33 percent). The table shows that out of 74.66 percent children falling ill once or in year, 36.66 percent children were found in below Rs 15,000 income households while, 38 percent children were found in 15,001 and above income households. Out of 12.66 percent children falling ill once or more in a month, 8 percent were found in below Rs 15,000 income households compared to only 4.66 percent found in 15,001 and above income households. Similarly, out of 9.33 percent children who seldom fall ill only 2.66 percent were found in below Rs 15,000 income households as compared to 6.66 percent children found in 15,001 and above income households, while out of 3.33 percent children falling ill once or more in a week, majority 2.66 percent were found in below Rs 15,000 income households while, only 0.66 percent were found in Rs 15,000 and above

income households. Also, out of 9.33 percent children who recover quickly without medication, 6.66 percent were found in Rs 15,001 and above income households compared to only 2.66 percent found in below Rs 15,000 income households while, out of 16 percent children who take time to recover even after medication, majority 10.66 percent were found in below Rs 15,000 income households as compared to 5.33 percent children found in Rs 15,001 and above income households.

High socio-economic status is correlated with better healthcare facilities for children as poor parents cannot afford treatment expenses.

Table 4 shows that majority (46.66 percent) children from Rs 15,001 and above income households were taken to the doctor at the time of illness as compared 30 percent children in below Rs 15,000 income households. Majority respondents (51.52 percent) who couldn't take their children for treatment due to

**Table 5** Relation of income with health of children

Signs and symptoms	Below Rs 5000		Rs 5001-10,000		10,001-Rs 15,000		Total Up to Rs 15,000		Rs 15,001 and above	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Malnutrition symptoms</b>										
Lack of energy	0	0.00	4	2.66	3	0.00	7	4.66	5	3.33
Lack of appetite	0	0.00	3	2.00	3	2.00	6	4.00	7	4.66
Dizziness	2	1.33	3	2.00	3	2.00	8	5.33	0	0.00
All of these	2	1.33	6	4.00	8	5.33	16	10.66	8	5.33
None of these	1	0.66	14	9.33	23	15.33	38	25.33	55	36.66
Total	5	3.33	30	20.00	40	26.66	75	50.00	75	50.00
<b>Health problems</b>										
Under weight	0	0.00	0	0.00	2	1.33	2	1.33	3	2.00
Over weight	0	0.00	0	0.00	0	0.00	0	0.00	3	2.00
Anaemia/other deficiency	1	0.66	9	6.00	7	4.66	17	11.33	5	3.33
Both underweight and anaemic	2	1.33	4	2.66	3	2.00	10	6.66	2	1.33
None of these	2	1.33	17	11.33	28	18.66	46	30.66	62	41.33
Total	5	3.33	30	20.00	40	26.66	75	50.00	75	50.00

Source: Field Data for health status of children, 2014 in Srinagar District of Kashmir Valley

**Table 6** Relation of household income with nutritional intake among children

Health indicators	Below Rs 5000		Rs 5001-10,000		10,001-Rs 15,000		Total Up to Rs 15,000		Rs 15,001 and above	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Major meals taken in a day</b>										
2meals	3	2.00	5	3.33	8	5.33	16	10.66	8	5.33
3meals	1	0.66	11	7.33	9	6.00	21	14.00	12	8.00
4meals	1	0.66	13	9.33	22	14.66	36	24.00	45	30.00
5 or above	0	0.00	1	0.66	1	0.66	2	1.33	10	6.66
Total	5	3.33	30	20.00	40	26.66	75	50.00	75	50.00
<b>Any major meals missed</b>										
Yes	4	2.66	16	10.66	17	11.33	37	24.66	20	13.33
No	1	0.66	14	9.33	23	15.33	38	25.33	55	36.66
Total	5	3.33	30	20.00	40	26.66	75	50.00	75	50.00
<b>Reason for not taking meals</b>										
Lack of appetite	2	1.33	9	15.78	11	19.29	22	38.59	15	26.31
Doesn't take lunch to school	0	0.00	2	3.50	6	10.52	8	14.03	5	8.77
Inability to provide adequate meals due to poverty	2	3.50	5	8.77	0	0.00	7	12.28	0	0.00
Total	4	2.66	16	10.66	17	29.82	37	64.91	20	35.08

Source: Field Data for health status of children, 2014 in Srinagar District of Kashmir Valley

poverty belong to below Rs 15,000 income households, while no such case was found in Rs 15,001 and above income households. Out of 8.57 percent respondents who think treatment is not necessary for their children at the time of illness, 5.71 percent belong to below Rs 15,000 income group as compared to 2.85 percent respondents belonging to Rs 15,001 and above income group.

A relationship was sought between signs and symptoms of ill health among children with the level of income of their family in table 5.

Table 5 reveals that among children who have none of these symptoms, majority children (36.66 percent) belong to high income households as compared to children (25.33 percent) from below Rs 15,000 income households. Majority of the children (10.66 percent) who have all the symptoms like lack of energy, dizziness, and lack of appetite belong to below Rs 15,000 income households as compared to 5.33 percent children from Rs 15,001 and above income households. Also, among the children who were both anaemic and underweight, 6.66 percent children belong to below Rs 15,000 income households as compared to 0.66 percent children from Rs 15,001 and above income households. 42.66 percent children who have no health issues were from Rs 15,001 and above

income households as compared to 39.33 percent children from below Rs 15,000 income households.

Dietary intake among children heavily depends on the purchasing power of parents or family. There is a strong relationship between dietary intake of children and income level of their households which can be shown in table 6.

Table 6 shows that 24 percent children taking only 4 major meals in a day were found in below Rs 15,000 income families compared to 30 percent were found in Rs 15,000 and above income families. 14 percent children taking only 3 major meals in a day were found in below Rs 15,000 income families compared to 8 percent were found in Rs 15,000 and above income families. Similarly, 10.66 percent children taking only 2 major meals in a day were found in below Rs 15,000 income group compared to 5.33 percent children found in Rs 15,000 and above income families. Only 1.33 percent children taking only 5 or above major meals in a day were found in below 15,000 income families compared to 6.66 percent found in Rs 15,000 and above income families. Majority of the children (24.66 percent) who miss their major meals were found in below Rs 15,000 income households compared to 13.33 percent children found in Rs 15,001 and above income households.

**Table 7** Relation of household income with Dietary intake among children

Health indicators	Below Rs 5000		Rs 5001-10,000		10,001-Rs 15,000		Total Up to Rs 15,000		Rs 15,001 and above	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Consumes milk products daily</b>										
Yes	0	0.00	20	13.33	32	21.33	52	34.66	68	45.33
No	5	3.33	10	6.66	8	5.33	23	15.33	7	4.66
Total	5	3.33	30	20.00	40	26.66	75	50.00	75	50.00
<b>Daily Consumption of fruits and vegetables</b>										
Takes both fruits and vegetables daily	1	0.66	14	9.33	23	15.33	38	25.33	55	36.66
Takes fruits only	0	0.00	3	2.00	6	4.00	9	6.00	11	7.33
Takes vegetables only	3	2.00	7	4.66	11	7.33	21	14.00	9	6.00
Does not take any of these daily	1	0.66	6	4.00	0	0.00	7	4.66	0	0.00
Total	5	3.33	30	20.00	40	26.66	75	50.00	75	50.00
<b>Daily diet of child</b>										
Eggs	0	0.00	11	7.33	18	12	29	19.33	37	24.66
Meat and poultry	0	0.00	4	2.66	5	3.33	9	6.00	13	8.66
Fish	0	0.00	0	0.00	0	0.00	0	0.00	5	3.33
None of these	5	3.33	15	10.00	17	11.33	37	24.66	20	13.33
Total	5	3.33	30	20.00	40	26.66	75	50.00	75	50.00

Source: Field Data for health status of children, 2014 in Srinagar District of Kashmir Valley

**Table 8** Relation of income status with mental health problems among children

Mental health issues	Below Rs 5000		Rs 5001-10,000		10,001-Rs 15,000		Total Up to Rs 15,000		Rs 15,001 and above	
	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Complains of the following problems</b>										
Stress	1	0.66	7	4.66	12	8.00	20	13.33	17	11.33
Nightmares	0	0.00	0	0.00	0	0.00	0	0.00	1	0.66
Intense fear	1	0.66	1	0.66	0	0.00	2	1.33	3	2.00
Nervousness	0	0.00	2	1.33	5	3.33	7	4.66	5	3.33
Any other	0	0.00	2	1.33	0	0.00	2	1.33	1	0.66
None	3	2.00	18	12.00	23	15.33	44	29.33	48	32.00
Total	5	3.33	30	20.00	40	26.66	75	50.00	75	50.00
<b>Existence of the following problems</b>										
Sleeping too much or too little	0	0.00	1	0.66	2	1.33	3	2.00	2	1.33
Lack of concentration	2	1.33	5	3.33	6	4.00	13	8.66	6	4.00
Frequent out bursts of anger	0	0.00	1	0.66	0	0.00	1	0.66	4	2.66
Prolonged sadness	0	0.00	3	2.00	5	3.33	8	5.33	7	4.66
None	3	2.00	20	13.33	27	18.00	50	33.33	56	37.33
Total	5	3.33	30	20.00	40	26.66	75	50.00	75	50.00

Source: Field Data for health status of children, 2014 in Srinagar District of Kashmir Valley

Among the reasons of missing major meals, 38.59 percent children suffering from lack of appetite were found in below Rs 15,000 income group compared to 26.31 percent children found in Rs 15,001 and above income households. All of the children (12.28 percent) who miss their meals due to poverty belong to below Rs 10,000 income households.

The table 7 shows that 34.66 percent children who consume milk daily belong to below Rs15,000 income households compared to 45.33 percent children belonging to above Rs 15,000 income households. 15.33 percent children who do not consume milk daily belong to below Rs 15,000 income families compared to 4.66 percent children who belong to Rs 15,000 and above income families. 25.33 percent children taking both fruits and vegetables daily were found in below Rs 15,000 income families compared to 36.66 percent found in Rs 15,000 and above income families. 6 percent children who take fruits only were found in below Rs 15,000 income families compared to 7.33 percent found in Rs 15,000 and above income families. All the children (4.66 percent) who do not take any of these daily were found in below Rs 15,000 income families. Similarly, 19.33 percent children who take eggs daily were found in below Rs 15,000 income families compared to 26.66

percent found in Rs 15,000 and above income families. 6 percent children who take meat and poultry daily were found in below Rs 15,000 income families compared to 8.66 percent found in Rs 15,000 and above income families. All children (3.33 percent) who consume fish daily were found in below Rs 15,000 income group. 24.66 percent children who do not take any of these daily were found in below Rs 15,000 income families compared to 13.33 percent children found in Rs 15,000 and above income families.

Children living in low-income households are more likely to have mental health problems are shown in table below:

Table 8 reveals the relation between income status and mental health of children in Srinagar district. Majority of the children (13.33 percent) who complained of having stress were from below Rs 15,000 income households as compared to 11.33 percent children from Rs 15,001 and above income households. Similarly, 4.66 percent children having issues of nervousness were from below Rs 15,000 income households as compared to 3.33 percent children from Rs 15,001 and above income households. Majority of the children (32 percent) having no problems like stress, nervousness, intense fear etc. were from below Rs 15,000 income households compared to 29.33

percent from Rs 15,001 and above income households. 8.66 percent children having lack of concentration were from below Rs 15,000 income households compared to 4 percent from Rs 15,001 and above income households. 4.66 percent children suffering from prolonged sadness belonged to below Rs 15,000 income households compared to 5.33 percent from Rs 15,001 and above income households. 33.33 percent children having none of the mental problems were from below Rs 15,000 income households compared to 37.33 percent from Rs 15,001 and above income households.

## DISCUSSIONS

Most of the children in Srinagar have good health and the health status of children is correlated with their household income. Children belonging to low income households had one or more health problems, the incidence of illness episodes was higher and the diet of children was deficient. The findings reveal that lesser the income of the household, less are the cases of good and excellent health and more are the incidence of illness. The incidence of good health among children becomes less as the income levels drops. Similarly, the incidence of poor health also increases with decrease in household income. For example, in case of good health there are 30 percent children in above 15000 income group, 13.33 percent children in 10,000-Rs 15,000 income group, 8.66 percent children in 5,000-10,000 income group, and only 0.66 percent children in below 5,000 income group. This shows a clear correlation of income with the health of children.

The influence of income on health is also recognized by world health organization which states that poor social and economic circumstances affect health throughout life. People further down the social ladder usually run at least twice the risk of serious illness and premature death as those near the top<sup>18</sup>. Ability to consult doctor at the time of illness is closely associated with income status of the household. High socio-economic status is correlated with better healthcare facilities for children as poor parents cannot afford treatment expenses.

Children from low income households had less doctor consultations at the time of illness as parents couldn't afford treatment expenses. These findings are in consonance with the findings of Bermans *et al.* which shows that increases in household income are positively linked to greater expenditures on child health care behaviour<sup>19</sup>. Children belonging to low income households suffer from symptoms of malnutrition like anaemia and underweight. 37.33 percent children from low income households are anaemic and underweight compared to 13.33 percent children from upper income households. NFHS 3 also shows that children from higher income households show less symptoms of ill health as compared to children from lower income households. NFHS 3 clearly show that in India the percentage of underweight children in the lowest wealth index category (56.6 percent) is nearly 3 times higher than that in the highest wealth index category (19.7 percent). About 76.4 percent of children (6-59 months) in the lowest wealth index are suffering from anaemia whereas 56.2 percent children of the highest wealth index are suffering from anaemia<sup>20</sup>.

Dietary intake among children heavily depends on the purchasing power of parents or family. Children's nutrition varies with parents' income and education and can have lasting effects on health throughout life. The findings reveal that

income of the households play a vital role in determining the daily diet of children. Children belonging to higher income groups consume nutritious diet as compared to children from low income households. These findings are in line with the average dietary intake of micronutrients estimated by the M. S. Swaminathan Research Foundation suggests that the low-income population in rural areas is able to meet 48 percent of the recommended daily allowance of iron<sup>21</sup>.

The problem of anaemia is much more common among girls in low income families. Also, among mental health problems children from low income families fared worse compared to their rich counterparts. Majority of the children who complained of having stress, lack of concentration, nervousness, prolonged sadness, frequent outbursts of anger etc. were from below Rs 15,000 income households. These findings clearly reveal that children from low income households fare worse in terms of mental health than children from high income households. A similar result was obtained by Lisa Strohsche in which indicates that, low household income is associated with higher levels of depression and antisocial behaviour; subsequent improvements in household income reduce child mental health problems<sup>22</sup>. In another study of Sareenet, *et. al* mental disorders was associated with lower levels of income. Participants with household income of less than \$20 000 per year were at increased risk of incident mood disorders during the 3-year follow-up period in comparison with those with income of \$70 000 or more per year<sup>23</sup>.

## CONCLUSIONS

Children constitute one of the most vulnerable sections of the society. The relationships between socioeconomic status (SES) of individuals and their health are well documented. There is consistent evidence that the socio economically better off individuals do better on most measures of health status including mortality, morbidity, malnutrition and health care utilization. The findings in Srinagar district of Kashmir reveals that most of the children in Srinagar have good health and the health status of children is correlated with their household income. Children belonging to low income households had one or more health problems, the incidence of illness episodes was higher and the diet of children was deficient. The findings reveal that lesser the income of the household, less are the cases of good and excellent health and more are the incidence of illness. The incidence of good health among children becomes less as the income levels drops. Ability to consult doctor at the time of illness is closely associated with income status of the household. High socio-economic status is correlated with better healthcare facilities for children as poor parents cannot afford treatment expenses. Children from low income households had less doctor consultations at the time of illness as parents couldn't afford treatment expenses. Dietary intake among children heavily depends on the purchasing power of parents or family. Children's nutrition varies with parents' income and education and can have lasting effects on health throughout life. The findings reveal that income of the households play a vital role in determining the daily diet of children. Children belonging to higher income groups consume nutritious diet as compared to children from low income households.

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