

# Malnutrition in the Children Associated With Dietary Socio-Economic Risk Factors in the family

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## ABSTRACT

**Background:** The growth or micronutrient status of an individual is termed as Nutritional Status. Malnutrition means there is a deficiency or excess of some nutrients in the body.

**Aim:** To find the risk factors and their association with Malnutrition.

**Methodology:** In this Cross-Sectional Study, we recorded data from 145 subjects coming for treatment of an illness in the OPD of Shalamar Hospital, based on Weight, Height, Head Circumference and Mid Upper Arm Circumference (MUAC). Risk factor includes Parents education, income, job status, dietary risk factors including consumption of fruits, vegetables and legumes etc.

**Results:** Out of 145 subjects, only 10(7%) had visited hospital. 103(71.7%) were male children, same in all age groups. MUAC identified that 16(11.3%) cases are Malnourished without severe Malnutrition. Median and Range of income was less in malnourished children as compared to children of normal MUAC. Malnourishment is also associated with low income and educational status of their fathers (p=0.04). Breastfeeding and nutritional intake of legumes, fruits, meat and eggs during weaning was identified to be less in malnourished cases. Differences between the 2-groups were statistically significant (p < 0.05).

**Conclusion:** The 12-Cases that are identified as Malnourished were associated with the Low-Income Status of their fathers; also these cases were also linked with the poor intake of nutrients.

**Keywords:** Risk factors, malnutrition, socioeconomic status

## INTRODUCTION

Nutritional Status means the Growth of an Individual. Growth starts from the conception period till the infancy and then Infant becomes an Adult. Anthropometric measurements are the measurements that are used to check the Physical Dimensions of the human body (i.e. Size, Height, Weight, MUAC etc). In this study we used these anthropometric parameters to estimate the malnourishment status of the children aged 6-months to 5-years, as well as the cause of their malnourishment by the Everyday life Risk Factors.

## METHODOLOGY

This cross-sectional study was conducted in the paediatrics OPD and ward of Services Hospital, Lahore from 1<sup>st</sup> July 2018 to 31<sup>st</sup> October 2018. Sample size was selected by Convenience Method to be 145. Sampling technique used was consecutive sampling.

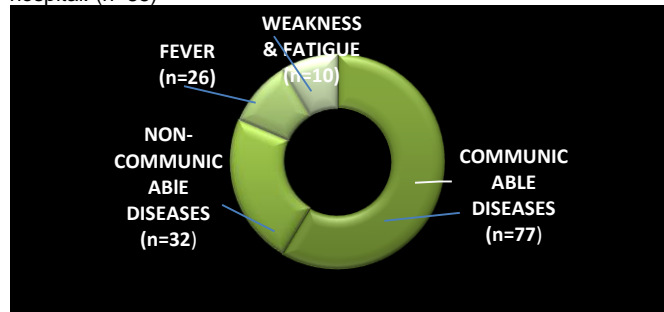
## RESULTS

We interviewed mothers of 164 children. Out of which, MUAC could not be measured in 3-Subjects. 16-Subjects were outside our specified age limit (i.e. 6-months to 5-years). Hence, the remaining children were 145, and they came hospital with some clinical signs and symptoms. Among these signs and symptoms, majority (53%) were due to some Communicable Diseases (n=77), and other (22%) are due to Non-communicable Diseases (n=32). Patients (children) with only fever as a sole symptom were (18%) and numbers are (n=26), and all other patients whose symptoms are due to Malnutrition like weakness,

fatigue and loss of appetite etc are (7%) and number (n=10). (Fig.1). 103 (71.7%) children are males and 40 were female children (i.e. 28.3%). Malnourishment was identified in only 16-Cases (i.e. 11%) out of 145, through Mean Upper Arm Circumference (MUAC). 12 were Male Children out 16 malnourished children.

**Socio-Economic related risk factor:** Regarding occupation of fathers; it shows that 27(18.9%) are low-skilled workers. Others includes businessmen, Govt. Employees & highly skilled workers were 41(28.3%) and then those of other variety of occupations were 77(52.8%).

Fig.1: Frequency of complaints with which child presented at hospital. (n=85)

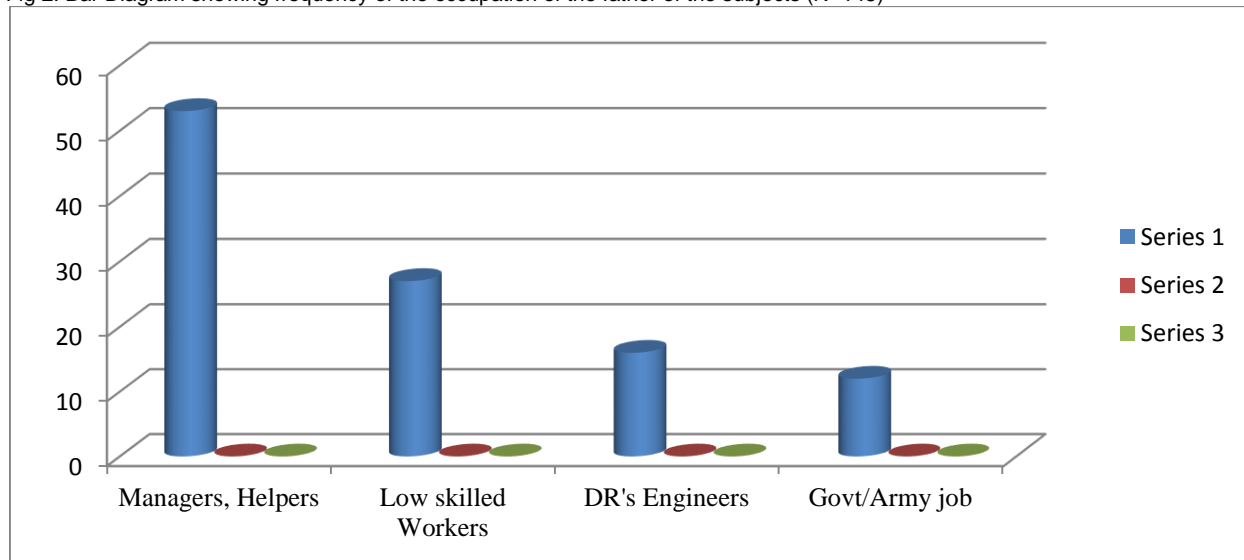


Socioeconomic & epidemiology risk factors

Table 6: Comparison of Mid upper arm measurements with age & gender of the subjects.

Age in Years	MUAC (1-5 Years) Malnourished			Total
	Normal	Male	Female	
1-2	27	10	3	40
2-3	36	2	0	38
3-5	33+34	0	0	67

Fig 2: Bar Diagram showing frequency of the occupation of the father of the subjects (N=145)



## DISCUSSIONS

Malnutrition means there is a deficiency or excess of some nutrients in the body. There are studies that find association of child's malnutrition with some family and socioeconomic risk factors. This study aims at finding these risk factors and their association with Malnutrition. Growth starts from the conception period till the infancy and then Infant becomes an adult. Anthropometric measurements are the measurements that are used to check the Physical Dimensions of the human body (i.e. size, height, weight, MUAC etc). In this study we used these anthropometric parameters to estimate the malnourishment status of the children aged 6-months to 5-years, as well as the cause of their malnourishment by the everyday life risk factors. among these signs and symptoms, majority (53%) were due to some Communicable Diseases (n=77), and other (22%) are due to non-communicable Diseases (n=32). Patients (children) with only fever as a sole symptom were (18%) and numbers are (n=26), and all other patients whose symptoms are due to Malnutrition like weakness, fatigue and loss of appetite etc are 10(7%).

## CONCLUSION

The 12-Cases that are identified as Malnourished were associated with the Low-Income Status of their fathers; also these cases were also linked with the poor intake of nutrients such as fruits, fresh meats and Legumes etc.

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