



ASSESS THE IMPACT OF CHILDHOOD NUTRITIONAL STATUS: A CASE STUDY OF DISTRICT KOHLU BALOCHISTAN

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ABSTRACT

In order to assess the impact of childhood nutritional status this research was carried out in district Kohlu Balochistan. Cross-sectional study was carried out. 700 sample sizes were selected among them 313 were males and 387 females respectively. Field survey technique was used. Raw information was thus coded, edited, and installed into SPSS version 22.0. Descriptive analysis was used. Results show that more than half (56%) of the children were female. Majority (70%) of the children belonged from 6-24 months. While, most 30% of the children belonged from 25-59 months. Most 15% of fathers and (49%) of mothers were illiterate. While, 42% of fathers and (33%) of mothers have a primary level of education. Fraction numbers 11% of fathers and only (3%) of mothers hold a high level of education at a formal institution. Majority (65%) of the children having poorer appetite status. More than half (57%) of the children did not lose their body weight. Majority (67%) of the children having chronic diseases at district level. Vast majority (90%) of the children vaccinated at district level. Based on achieved outcomes this research recommended that both public and private sectors related with nutrition management should start the Effective Nutrition Program at district level for children. Beneficial health facilities should be provided at tehsil level.

Keyword: childhood, impact, nutritional status, Balochistan, district.



1.1 Overview

Globally, it is assessed that nearly 1/3 persons are facing at least one form of malnutrition such as obesity, overweight, mineral deficiency, lack of various vitamins and the like. Worldwide, the vitamin-A deficiency affects 1/3 under five years' children (World Health Organization, 2005; and Black, 2008). It seems that undernutrition is more common and prevalent in urban slums in developing countries (WHO, 2017; and Liz, 2002).

Nutritional deficiency in human beings occurred due to ineffective or stunted organism growth as a result body's tissues adversely affects, restricted and health problems (Katsilambros, 2011; and Hickson and Smith, 2018). Malnutrition occurs in the human body whenever the body does not receive a correct amount of nutrition access. Mostly it was observed that malnutrition phenomena prevailed under the age of five year children (Woldemichael et al., 2022).

Undernutrition means deficiencies of micronutrient consequently severe acute malnutrition disorder and chronic hunger of children's (Manoj and Ashutosh, 2011; Morley, 2012; Young, 2012; World Health Organization, 2013; and UNICEF, 2018). This phenomenon severely affects the physical and mental health as a results highest children mortality rate and negative physiologic effects under 4 to 5 years' children age (Martins et al., 2011; Sobotka, 2012; and Cederholm et al., 2015).

Lack of nutrients caused various malicious factors such as stunted growth, deteriorating health condition and underweight. On the other hand, access to nutrients causes obesity in the human body (UNICEF, 2021).

However, the access of nutrients is also causing the stunted growth/ wasting, dietary risks, overweight and obesity as reported by the Lancet Commission 2019 and the World Health Organization (WHO, 2011; Min et al., 2017; Ngaruiya et al., 2017; Swinburn et al., 2019; The Lancet Commission, 2019; and Ghattas et al., 2020).

1.2 Malnutrition Status regarding Children Health

It was observed that malnutrition status is prevailing among five years' children at the highest rate. It was worthwhile to mention that 149 million children under 5 years stunted, while 45 million wasted, as well as 38.9 million remained overweight during the period of 2020. However, in the same period 45% of children around the world died due to undernutrition (Murarkar et al., 2020).

However, in South Asia the intensities are more severe among under 5-year-old children (WHO, 2012). The highest burden of wasting with over twenty percent wasted children was reported only in India (Murarkar et al., 2020). In the East Africa nation, it was observed 33.3%. In Kenya it was observed at 21.9% and in Burundi it was observed at 53% respectively (Tesema et al., 2021). On the



other hand, in African countries this rate was much higher (Gautam et al., 2018). In Tanzania, it was observed in lowland 41% and in highland 64.5% respectively. In South Sudan, the prevalence of undernutrition and underweight were observed 23.8%, 4.8% respectively (Kiarie et al., 2021).

Children's cognitive ability was severely affected due to undernutrition. Childhood undernutrition status caused a variety of deficiency (The Medical News, 2018). Worldwide, 54% percent of children faced acute undernutrition as reported by WHO (Burchi et al., 2011; and Duggan et al., 2008). Consequently, there is a robust relationship between child mortality and undernutrition. Therefore, it was necessary to overcome the undernutrition dilemma and develop the adequate food supplement or better nutritional intake occupied with opulent micronutrients under five year children (Bhutta et al., 2008; and Collins et al., 2007).

In Pakistan children are faced with various nutritional disorders. However, at country level 40.2% children are stunted and 17.7% children are wasted as reported by National Nutrition Survey 2018 (GoP, 2018). This scenario is extremely critical and did not match the WHO standards. Various programs were started regarding to decrease the rate of stunting and wasting at the country level but unfortunately the majority were abolished and discarded. And children's health remained vulnerable (NNS, 2018).

In Balochistan, 0.4 million children faced or suffered from acute malnutrition. The majority of children belonged from under the age of 5. Due to the persistent drought spell mostly in fourteen districts of Balochistan, children aged between 6 to 59 months were faced with serious public health problems (54%). Owing to the determined drought spell one district of Balochistan became extremely critical level, while 11 districts of Balochistan fell into critical level and 2 districts of Balochistan fell into serious level. During the period of drought (2019), 738,000 children that fell into the age groups of 6 to 59 months were victimized by acute malnutrition deficiencies. In this context, Panjgur district faced the austere malnutrition deficiencies and fell into the extremely critical levels regarding the acute malnutrition under the age of 5 years. Although 11 other districts have Critical levels of acute malnutrition (IPC AMN Phase 4), Dera Bugti, Jhal Magsi, Pishin and Kachhi, there were acute malnutrition levels at threshold level. While, the Gwadar as well Awaran districts fell into the serious levels regarding the acute malnutrition deficiency.

High acute food insecurity, breastfeeding, low vaccination coverage, poorer water and sanitation conditions in all the 14 districts of Balochistan prevailed at a greater extent. However, the malnutrition deficiency was a prime problem in these districts (IPC, 2023).

In Balochistan, children are facing the severe malnutrition. Around fifty-two percent children were stunted and faced the chronic malnutrition as a results the child mortality rate was higher. 16% children in the Balochistan faced acute undernourishment. Forty % of children faced the underweight. 49% females were faced with severe malnutrition. 49% of females faced the anemia disease and 57%



of children (under 5) were faced with the same disease like (anemia). 29% of females faced iodine deficiency. These circumstance was serious at province level (Shah, 2018).

1.3 Significant of Study

This was the most imperative research. This research was not only useful for policy-makers but also important for planners who will be developing the upcoming plan regarding the childhood nutritional status. The information and data obtained from current research may also lead the strategy-makers in future decisions about child nutritional status growth.

1.4 Problem Statement

Ninety percent of demographic population at country level facing the deficiency of vitamin particularly Vitamin-D. These abnormalities are also affects the growing bone of children. Due to malnutrition the children are a more vulnerable section and these deficiencies are more prone to damage the respiratory system as well as creating gastrointestinal infections among children. Due to lack of nutrition majority of the children were retarded in growth and body development. Therefore, this research was conducted in order to assess the impact of childhood nutritional status as a case study of district Kohlu Balochistan.

1.5 Objectives of the Study

1. To assess the factors associated with malnutrition under age five of children.
2. To develop the need-based recommendations for policy implications.

1.6 Methodology

Cross-sectional study was carried out (Ary, Jacobs & Razavieh, 1996) so that to determine the risk factors associated with malnourished status among under children five years' age. 700 sample size were selected from Kohlu district Balochistan province among them 313 were males and 387 females respectively by using sample random technique (Cochran, 1963; and Chaturvedi, 1970). Detailed questionnaire in this context was administered (Trochim, 2000). Questionnaire was contained both independent and dependent variables such as gender nature, children age, parentages educational ranking, children appetite status, children weight loss status, children chronic diseases and children immunization status. Face-to-face technique was used in this research (Best & Kahn, 1986; Barzun & Graff, 1990; and Nachmias, & Nachmias, 1992). The raw information was thus coded, edited, and installed into SPSS version 22 (Likert, 1932; Leedy, 1989; George & Mallery, 2003). Descriptive analysis was used. Percent and frequency was calculated, Contingency tables, pie graphics and diagrams were used. The result of the data was presented by using frequency distribution (Creswell, 1998; and Sekaran, 1992).

1.7 Results of the Study



Both independent and dependent variables were examined by using the SPSS. In this regard, socio-economic factors of the parents were also examined.

Table 1. Children gender nature

Gender	Frequency	Percentage
Male	313	44%
Female	387	56%
Total	700	100%

More than half (56%) of the children were female and the remaining 44% of the children were male as shown in table-1.

Table 2. Children age

Age in month	Frequency	Percentage
6-24	495	70%
25-59	205	30%
Total	700	100%

Two groups were designed having age 6-24 month and 25-59 with figure of 495 and 205 serially. Majority (70%) of the children belonged from 6-24 months. While, most 30% of the children belonged from 25-59 months (table-2).

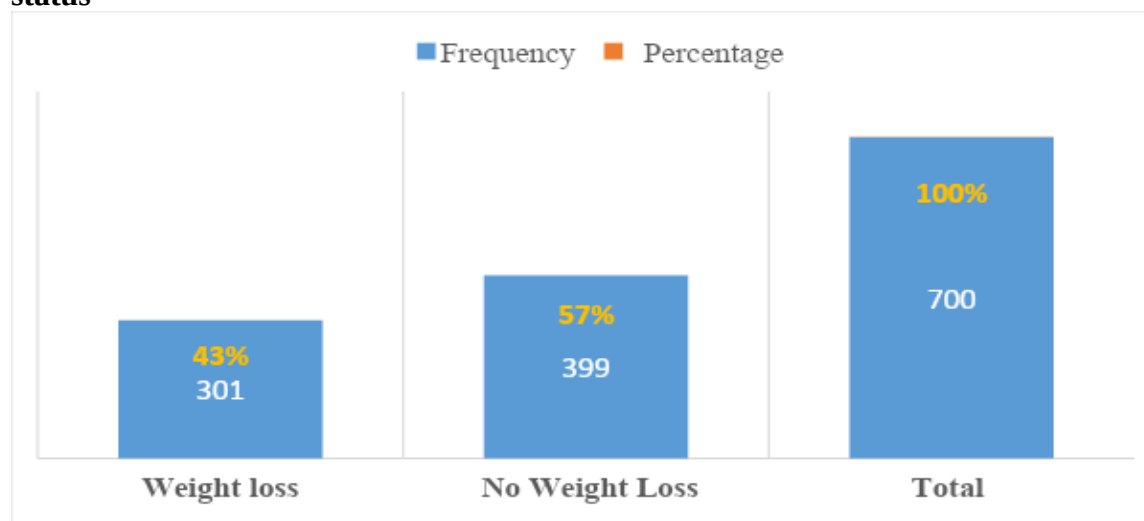
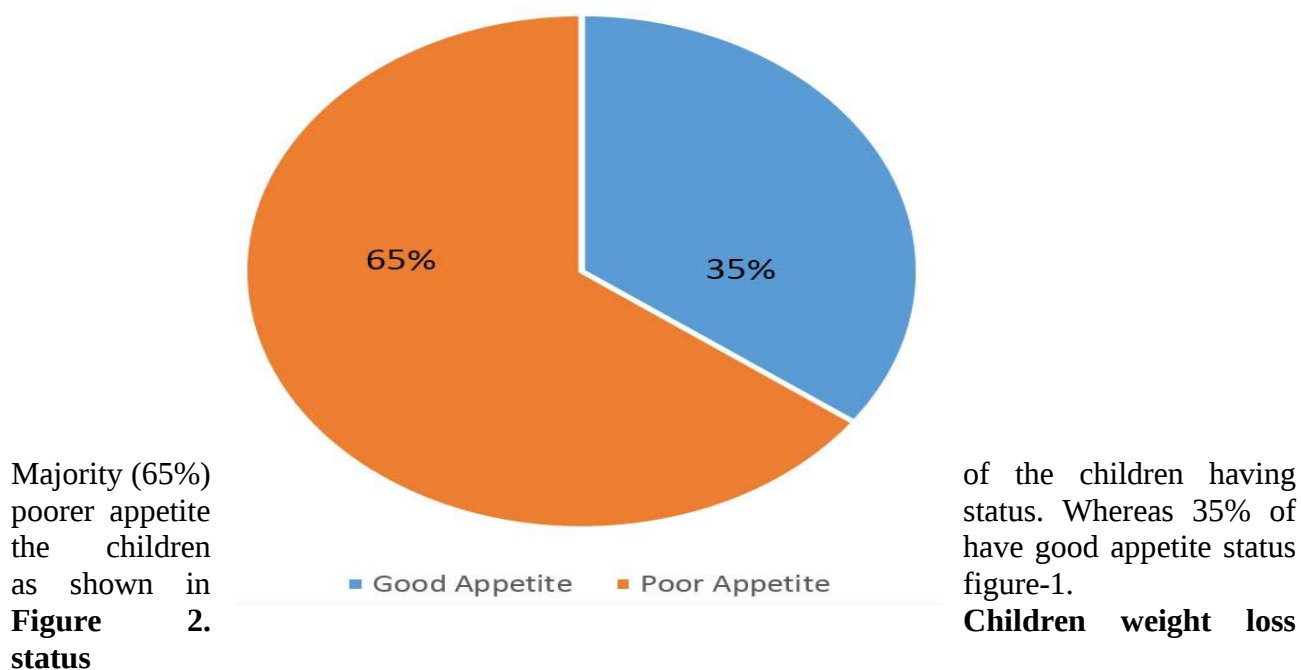
Table 3. Parentages educational ranking

Parents qualification	Parentages	Frequency	Percentage
Illiterate	Father	106	15%
	Mother	343	49%
Primary	Father	287	42%
	Mother	231	33%
Secondary	Father	227	32%
	Mother	105	15%
Higher	Father	80	11%
	Mother	21	3%

The results of table-3 shows that most 15% of fathers and (49%) of mothers were illiterate. While, 42% of fathers and (33%) of mothers have a primary level of education. Whereas, most 32% of fathers and (15%) of mothers have a secondary level of education. Fraction numbers 11% of fathers and only (3%) of mothers hold a high level of education at a formal institution.



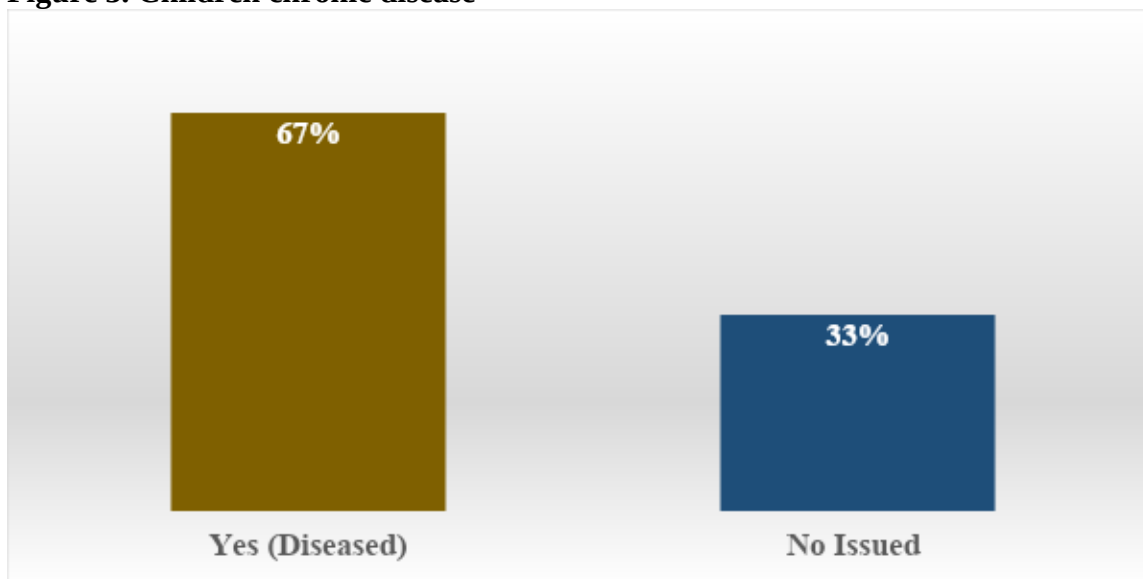
Figure 1. Children appetite status



More than half (57%) of the children did not lose their body weight. While, 43% of the children lose their body weight (figure-2).

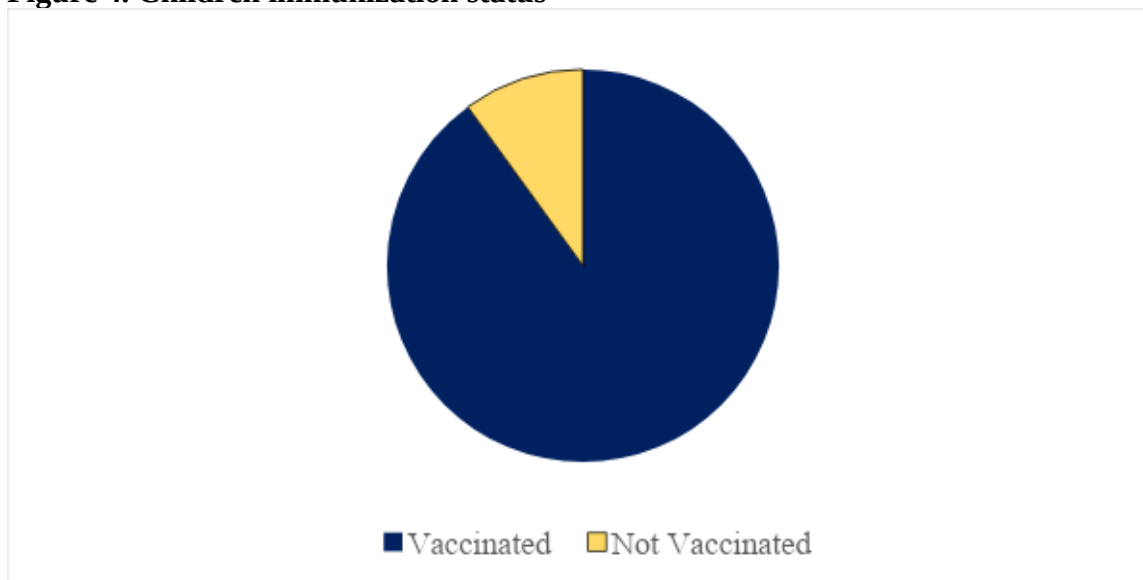


Figure 3. Children chronic disease



Majority (67%) of the children having chronic diseases at district level at all. Whereas, most 33% of the children did not face these problems (figure-3).

Figure 4. Children immunization status



Vast majority (90%) of the children vaccinated at district level (figure-4). While most 10% of the children were not vaccinated by their parent's ignorance or health staff carelessness.



1.8 Conclusion and Recommendations

Current research highlighted the childhood nutritional status as a case study of district Kohlu Balochistan. Various factors were assessed in this research regarding childhood nutritional status. Based on achieved outcomes this research recommended that both public and private sectors related with nutrition management should start the Effective Nutrition Program at district level for children. Mother health problems and new born children are one of the most imperative issues in this regard. Therefore, it recommended that beneficial health facilities should be provided at tehsil level in the province.



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