



## Original Article

## Perception of Mothers Regarding Malnutrition in Children Under Five Years Old in Muzaffargarh

Zambeen Farooq<sup>1</sup>, Sarfraz Masih<sup>1</sup> and Muhammad Afzal<sup>1</sup><sup>1</sup>Lahore School of Nursing, The University of Lahore, Lahore, Pakistan

## ARTICLE INFO

## Key Words:

Malnutrition, Perception, Children, Mothers

## How to Cite:

Farooq, Z., Masih, S., & Afzal, M. (2022). Perception of Mothers Regarding Malnutrition in Children Under Five Years Old in Muzaffargarh: Perception of Mothers Regarding Malnutrition in Children. *Pakistan Journal of Health Sciences*, 3(07).  
<https://doi.org/10.54393/pjhs.v3i07.284>

## \*Corresponding Author:

Zambeen Farooq  
 Lahore School of Nursing, The University of Lahore,  
 Lahore, Pakistan  
[z.farooq.b@gmail.com](mailto:z.farooq.b@gmail.com)

Received Date: 27<sup>th</sup> October, 2022Acceptance Date: 19<sup>th</sup> December, 2022Published Date: 31<sup>st</sup> December, 2022

## ABSTRACT

Malnutrition is still a serious issue that mostly affects children under the age of five worldwide, not just in impoverished nations. Early on in life, ensuring that children get the nutrients they need is critical to their immune system health, as well as their physical and intellectual growth. **Objectives:** To explore the perception of mothers regarding malnutrition in children under five years old in Muzaffargarh. **Methods:** This was a descriptive qualitative study carried out in Muzaffargarh, Punjab. Overall, 35 participants were employed in the study from Tehsil headquarters Jatoi, Muzaffargarh. The participants were interviewed and the data was audio recorded and in written notes. Thematic analysis was done once the data was collected. **Results:** The majority (48.6%) of the participants was from the age group of more than 35 years and 71.4% of the participants were living in extended families. More than half (54.3%) of the participants were having 3-4 children and 51.4% of the participants were illiterate. A total of 112 codes were extracted. Overall, five these were extracted from 20 categories which highlighted the perception of mothers regarding malnutrition in children under five years old. These five extracted themes were "Lack of Awareness", "Contributing Factors", "Poor socioeconomic status", "Poor quality of diet" and "Poor child Health". **Conclusions:** Parents perceived that they done have enough understanding regarding malnutrition. Besides, poor hygiene, improper nutrition, lack of balance diet is some of the contributors of malnutrition among children under five years old. In order to improve parents' knowledge of the appropriate feeding methods for infants and children, health promotion activities should be strengthened at child welfare clinics, health facilities, and at the community level.

## INTRODUCTION

A condition known as malnutrition is characterized by a lack of calories, carbohydrates, vitamins, proteins, or minerals in the diet, or by an excess of these elements [1, 2]. It is a state of nutrition that can be shown by either a lack of vital nutrients or an excess of those nutrients [3]. Malnutrition has always been a major issue, affecting primarily children under the age of five worldwide and not just in developing nations [4]. There are 663 million individuals in the world that are malnourished. As a result of inadequate nutrition or recurrent infections, 22% of children less than the age of five are considered to be malnourished [5]. According to the statistics, approximately, 170 million children under the age of five around the world are expected to be moderately or severely

stunted, while 110 million children under the age of five are moderately or severely underweight [6]. According to UNICEF, South Asia is home to more than half (56%) of the world's total stunted children, which amounts to 87 million individuals [7]. At least half of all childhood deaths that occur anywhere in the world can be attributed to malnutrition [8]. If a child does not receive appropriate nutrition during the first one thousand days of their existence, it can cause stunted growth, which can last a lifetime and result in a diminished capacity for cognitive function [9]. In Pakistan, the proportion of children under the age of five who are stunted is 40 percent, while the proportion who is underweight is 17.7 percent. The double burden of malnutrition is becoming more and more

obvious, as almost one in three children (28.9%) are underweight [10]. The statistics for breastfeeding mothers in Pakistan are the worst in all of South Asia, while the statistics for the province of Punjab are the worst in Pakistan. Every month, the department receives registrations of more than 4,000 children suffering from severe acute malnutrition in 18 of the province of Punjab's 36 districts [11, 12]. Inadequate nutrition is one of the leading contributors to illness and mortality in children. It's been estimated that malnutrition is responsible for over half of all child deaths that occur around the world [13]. According to the World Health Organization (WHO), child malnutrition is responsible for roughly 35 percent of all fatalities that occur among children younger than 5 years old all over the world [14]. Severely malnourished have an increased chance of death from common childhood illnesses such as pneumonia and diarrhea [15]. A variety of factors contributes to malnutrition. Inadequate intake of nutrients, infectious diseases, and improper techniques for breast-feeding, early age pregnancy, inadequate health services, poor sanitary conditions, poverty, illiteracy, and gender inequality are some of the factors that contribute to the high prevalence of malnutrition in children under the age of five [16]. Malnutrition can have a variety of adverse effects, some of which are listed below: an elevated risk of illness, stunted growth in children, and an increased risk of passing away [17]. In addition to this, it poses a threat to the child's physical and mental development, which in turn leads to poor academic performance. Early on in life, ensuring that children get the nutrients they need is critical to their immune system health, as well as their physical and intellectual growth [18]. In the parts of the globe that are still developing, childhood malnutrition is still rather common; nevertheless, the role that mother perception plays in nutritional status and its effect on the outcome of nutritional treatments is not well understood. There are not nearly enough studies that look at how mothers feel about their children being malnourished. Therefore, this study was designed to explore the perception of mothers regarding malnutrition among children under five years old.

## METHODS

This was a Qualitative exploratory study to explore the perceptions of mothers regarding malnutrition among the children less than five years old. The study was carried out in Tehsil headquarters (THQ) Jatoi, Muzaffargarh, a district in the south of Punjab, Pakistan. The study was carried out in 2022 (January 2022–september 2022). A total of 35 participants were included in the study. the sample size was based on previous study carried out by Reither et al [17]. All the participants were recruited in the study using Simple random sampling technique. Mothers who were 20

to 40 years of age with a parity status of 1-6 were included in the study. Mothers who are already having treatment for their malnourished children were excluded from the study. The study was approved from ethical review board of university of Lahore. Data collection permission was also granted from the concern hospital. Written permission was granted from all the participants. Data was gathered using interviews. All conversations during the interview were conducted in Saraiki language so that participants were able to talk freely without any restrictions in expressing their opinions. Thematic analysis was used to analyze the data in codes, categories and themes.

## RESULTS

The basic purpose of the study was to explore the perception of mothers regarding malnutrition in children under five years old. A total of 35 participants were included in the study. The majority (48.6%) of the participants was from the age group of more than 35 years and 71.4% of the participants were living in extended families. More than half (54.3%) of the participants were having 3-4 children and 51.4% of the participants were illiterate (Table 1).

	n (%)
<b>Age of the Participants</b>	
Less than 25 Years	3 (8.6%)
25 to 35 Years	15 (42.9%)
More than 35 Years	17 (48.6%)
Total	35 (100.0%)
<b>Type of family of the Participants</b>	
Nuclear	10 (40.0%)
Extended	25 (71.4%)
Total	35 (100.0%)
<b>Number of children</b>	
1-2 children	10 (28.6%)
3-4 children	19 (54.3%)
5-6 children	6 (17.1%)
Total	35 (100.0%)
<b>Education status of the participants</b>	
Illiterate	18 (51.4%)
secondary	8 (22.9%)
Secondary	7 (20.0%)
Masters	2 (5.7%)
Total	35 (100.0%)

**Table 1:** Socio-demographic profile of the participants, n=35

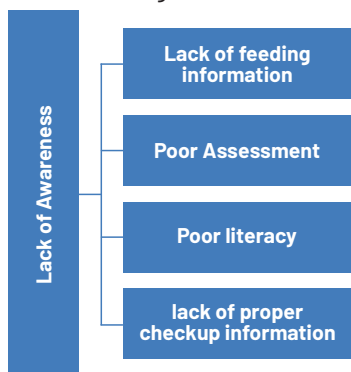
Thematic analysis was done and overall 112 codes were extracted. 20 categories were extracted from these codes. Overall five these were extracted from 20 categories which highlighted the perception of mothers regarding malnutrition in children under five years old. These five extracted themes were "Lack of Awareness", "Contributing Factors", "Poor socioeconomic status", "Poor quality of diet" and "Poor child Health" (Figure 1). Poor child health was

also reported by the mothers. The mother responded that recurrent illness and diarrheal diseases are most frequent among the children. They also responded that the children are not responding to the treatment and they also experience problems in approaching health care centers. The mothers were reported that their children used to eat junk food like chips, burgers and biscuits etc. the mothers also reported nutrition which is not recommended in children less than 2 years such as cow milk, black and green tea. Similarly, the mothers also reported that they rarely cook meat and provide balanced diet to the children.

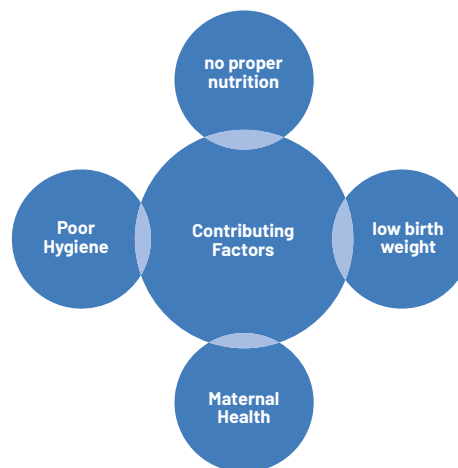


**Figure 1:** Thematic analysis of the data

The first extracted theme was "Lack of Awareness". The theme was extracted from four categories i.e. "Lack of feeding information", "Poor Assessment", "Poor Literacy", "Lack of proper checkup information" (Figure 2). Lack of awareness among the mothers regarding malnutrition was the main concern. poor assessment of the children about malnutrition was reported by the mothers. poor literacy was also a concern which affect the awareness among the mothers reharding malnutrition. The mothers were reported that they were not aware about the regular checkup of their babies for malnurishment. Also, mothers were unaware about feeding of the children.



**Figure 2:** Categories for the theme Lack of Awareness



**Figure 3:** Categories for the theme "contributing factors"

Poor socioeconomic status of the family and participants was also a theme extracted from the categories; "No Proper Drainage system", "Poor Financial status", "lack of garbage disposal system" and "poor sanitation system" (figure 4). The mothers were reported that they have poor socioeconomic condition. They reported that they have no proper drainage system in their houses, they experience poor financial status. Similarly, some of the mothers reported that they don't have specific garbage disposal system and poor sanitation system.



**Figure 4:** Categories for the theme "Poor Socioeconomic status"

## DISCUSSION

The basic purpose of the study was to explore the perception of mothers regarding malnutrition in children under five years old. In the current study, five extracted themes were "Lack of Awareness", "Contributing Factors", "Poor socioeconomic status", "Poor quality of diet" and "Poor child Health". These findings were supported by another studies, the findings suggested that mothers have a limited understanding of malnutrition as an illness, as well as its signs and symptoms, causes, and methods for preventing and treating malnutrition in children. As a result of this lack of awareness, mothers had incorrect beliefs regarding the issue of child malnutrition. It was discovered that mothers did not view malnutrition as a significant problem that could necessitate hospitalization for the purpose of receiving treatment; rather, they anticipated receiving a diagnosis of something else. A lack of awareness regarding hunger, incorrect conceptions of malnutrition held by mothers, illiteracy and unemployment, as well as cultural factors such as bringing a kid to a

traditional healer rather than a medical health institution are all contributing causes [19, 20]. In this study lack of awareness of mothers about malnutrition was a major problem. The mothers were not aware about child health status, follow-ups and the way they improve nutrition status of the children. Similar findings were reported by another similar study and mothers reported low awareness about malnutrition among the children less than five year of age [21]. Similarly, these findings were supported by another study which stated that mothers have poor understanding regarding assessment, prevention and associated factors of malnutrition among the children [22, 23]. The current study, mothers perceived that some factors such as "No proper nutrition", "Poor Hygiene", "low birth weight" and "Maternal Health" contribute to malnutrition in children. Supporting the current findings, malnutrition was significantly higher in children who were born with LBW compared to children who had normal birth weights (stunting prevalence was 51% compared to 39%, wasting prevalence was 25% compared to 14%, and underweight prevalence was 52% compared to 33%). Children who LBW had had a significantly increased risk of becoming malnourished compared to their counterparts who had stunting, wasting, and underweight, respectively. This was the case even after taking into account the known risk factors [24]. In the current study, No Proper Drainage system, Poor Financial status, lack of garbage disposal system and poor sanitation system was perceived by the mothers who have malnourished children. Supporting the current findings, study reported that this index expands the boundaries of poverty beyond the lack of material assets to a concept that encompasses multiple deprivations, including but not limited to: assets, living standards, education, sanitation and hygiene, health and nutrition [25]. Poverty is portrayed through this index as a deprivation of basic amenities that restricts individuals from leading a good and healthy life. It also takes into account the systemic disparities that exist within a country [26]. Similarly, in the current study, Prohibited food, Lack of balance diet, Junk Food, and Improper Nutrition were perceived by the mothers. Literature revealed that balance diet is very necessary for the children to maintain optimum health. How milk contains mycotoxins [27]. Numerous health issues, including immune system suppression, organ dysfunction (damage to the kidney and liver), reproductive issues, neurological issues, child stunting, abrupt death in cases of acute exposure, and cancer promotion are all linked to human exposure to various mycotoxins [28]. In this study mother highlighted poor health status of children and furthermore that Recurrent Illness, no response to treatment, Lack of health care facilities and diarrheal disease are commonly prevalent

among the children. These findings were supported that by another study and the findings revealed that poor child health is associated with malnutrition [29]. Furthermore, chronic and acute diseases which led the children to admit in the hospital lead to severe malnutrition in children [30]. In the similar context, other studies also provided similar findings and reported that recurrent diarrhea among the children lead to severe loss minerals and electrolytes. This not only affects the children current health status but also lead to severe malnutrition [31, 32].

## CONCLUSIONS

One of the main problems affecting children under the age of five is malnutrition. The mother's understanding, health, literacy, family background, and interests are all somehow related to the children's nutrition status, which is entirely dependent on the mother. Overall, there were five themes that captured the mother's perceptions of malnutrition in children under the age of five: "Lack of Awareness," "Contributing Factors," "Poor Socioeconomic Status," "Poor Quality of Diet," and "Poor child Health." Parents said they did not comprehend malnutrition well enough. In addition, inadequate nutrition, poor cleanliness, and an unbalanced diet are some of the factors that contribute to malnutrition in children under the age of five. Health promotion initiatives at child welfare centers, hospitals, and the local level should be reinforced in order to increase parents' knowledge of the best feeding practices for newborns and kids.

## Conflicts of Interest

The authors declare no conflict of interest

## Source of Funding

The author(s) received no financial support for the research, authorship and/or publication of this article

## REFERENCES

- [1] Davis JN, Oaks BM, Engle-Stone R. The double burden of malnutrition: A systematic review of operational definitions. *Current developments in nutrition*. 2020 Sep; 4(9): 1-14. doi: [10.1093/cdn/nzaa127](https://doi.org/10.1093/cdn/nzaa127)
- [2] World Health Organization. Guideline: assessing and managing children at primary health-care facilities to prevent overweight and obesity in the context of the double burden of malnutrition. Available at: <https://apps.who.int/iris/bitstream/handle/10665/259133/9789241550123-eng.pdf>
- [3] Abate KH and Belachew T. Chronic malnutrition among under five children of Ethiopia may not be economic. A systematic review and meta-analysis. *Ethiopian journal of health sciences*. 2019; 29(2): 265-77. doi: [10.4314/ejhs.v29i2.14](https://doi.org/10.4314/ejhs.v29i2.14)

- [4] Fetriyuna F. Ready-to-Use Food (RUF) from composite flour of local commodities in Banten Province, Indonesia for prevention and rehabilitation of malnutrition in children under five. Sep 2021.
- [5] Dukhi N. Global prevalence of malnutrition: evidence from literature. *Malnutrition*. 2020 Apr; 1: 1-6. doi: [10.5772/intechopen.92006](https://doi.org/10.5772/intechopen.92006)
- [6] Asim M and Nawaz Y. Child malnutrition in Pakistan: evidence from literature. *Children*. 2018 May; 5(5). doi: [10.3390/children5050060](https://doi.org/10.3390/children5050060)
- [7] UNICEF. The state of the world's children 2008: Child survival. 2018; 8: 565-74
- [8] Bowers KS, Francis E, Kraschnewski JL. The dual burden of malnutrition in the United States and the role of non-profit organizations. *Preventive medicine reports*. 2018 Dec 1; 12: 294-7. doi: [10.1016/j.pmedr.2018.10.002](https://doi.org/10.1016/j.pmedr.2018.10.002)
- [9] Cameron L, Chase C, Haque S, Joseph G, Pinto R, Wang Q. Childhood stunting and cognitive effects of water and sanitation in Indonesia. *Economics & Human Biology*. 2021 Jan; 40: 100944. doi: [10.1016/j.ehb.2020.100944](https://doi.org/10.1016/j.ehb.2020.100944)
- [10] Batool F, Margrate M, Tasneem M, Nasir A. Literacy level of mothers and its association with nutritional status of children under five years of age, in rural area of Lahore. *Pure and Applied Biology (PAB)*. 2020 Apr; 9(2): 1619-26. doi: [10.19045/bspab.2020.90170](https://doi.org/10.19045/bspab.2020.90170)
- [11] Zakar R, Zakar MZ, Zaheer L, Fischer F. Exploring parental perceptions and knowledge regarding breastfeeding practices in Rajanpur, Punjab Province, Pakistan. *International breastfeeding journal*. 2018 Dec; 13(1): 1-2. doi: [10.1186/s13006-018-0171-z](https://doi.org/10.1186/s13006-018-0171-z)
- [12] Riaz A, Bhamani S, Ahmed S, Umrani F, Jakhro S, Qureshi AK, et al. Barriers and facilitators to exclusive breastfeeding in rural Pakistan: a qualitative exploratory study. *International breastfeeding journal*. 2022 Dec; 17(1): 1-8. doi: [10.1186/s13006-022-00495-4](https://doi.org/10.1186/s13006-022-00495-4)
- [13] Kassaw A, Amare D, Birhanu M, Tesfaw A, Zeleke S, Arage G, et al. Survival and predictors of mortality among severe acute malnourished under-five children admitted at Felege-Hiwot comprehensive specialized hospital, northwest, Ethiopia: a retrospective cohort study. *BMC pediatrics*. 2021 Dec; 21(1): 1-0. doi: [10.1186/s12887-021-02651-x](https://doi.org/10.1186/s12887-021-02651-x)
- [14] Alamgir K, Sami UK, Salahuddin K. Nutritional complications and its effects on human health. *Journal of Food Science and Nutrition*. 2018; 1(2018): 17-21. doi: [10.1017/S1368980018003191](https://doi.org/10.1017/S1368980018003191)
- [15] Kirolos A, Blacow RM, Parajuli A, Welton NJ, Khanna A, Allen SJ, et al. The impact of childhood malnutrition on mortality from pneumonia: a systematic review and network meta-analysis. *BMJ Global Health*. 2021 Nov; 6(11): e007411. doi: [10.1136/bmjgh-2021-007411](https://doi.org/10.1136/bmjgh-2021-007411)
- [16] Gouda J, Gupta AK, Yadav AK. Association of child health and household amenities in high focus states in India: a district-level analysis. *BMJ open*. 2015 May; 5(5): e007589. doi: [10.1136/bmjopen-2015-007589](https://doi.org/10.1136/bmjopen-2015-007589)
- [17] Reiher A and Mohammadnezhad M. A qualitative exploration of behavioral factors affecting mothers of malnourished children under 5 years old in Kiribati. *F1000Research*. 2019 Jan; 8: 1-17 doi: [10.12688/f1000research.17732.2](https://doi.org/10.12688/f1000research.17732.2)
- [18] Yaya S, Oladimeji O, Odusina EK, Bishwajit G. Household structure, maternal characteristics and children's stunting in sub-Saharan Africa: evidence from 35 countries. *International Health*. 2022 Jul; 14(4): 381-9. doi: [10.1093/inthealth/ihz105](https://doi.org/10.1093/inthealth/ihz105)
- [19] Ditebo GP. Malnutrition in children: the perceptions of mothers in Botswana (Doctoral dissertation, University of Pretoria). 2010.
- [20] Adeomi AA, Fatusi A, Klipstein-Grobusch K. 'Children eat all things here': a qualitative study of mothers' perceptions and cultural beliefs about underweight and overweight children and adolescents in selected communities in two Nigerian states. *BMJ open*. 2022 Apr; 12(4): e059020. doi: [10.1136/bmjopen-2021-059020](https://doi.org/10.1136/bmjopen-2021-059020)
- [21] Nayak BS, Unnikrishnan B, George A, Shashidhara YN, Mundkur SC. Mothers Knowledge on Malnutrition: Community based Cross Sectional Study. *Indian Journal of Public Health Research & Development*. 2018 Jan; 9(1). doi: [10.5958/0976-5506.2018.00007.4](https://doi.org/10.5958/0976-5506.2018.00007.4)
- [22] Chatterjee P. A study to assess the effectiveness of planned teaching programme on the knowledge of GNM students regarding breast cancer and breast self-examination (BSE) and the ability.... *Nursing Journal of India*. 2002 Apr; 93(4): 93-92.
- [23] Sawane K, Barde S. Mother's knowledge on nutrition and incidence of malnutrition. *Executive editor*. 2019 Jan; 10(1): 32. doi: [10.5958/0976-5506.2019.00008.1](https://doi.org/10.5958/0976-5506.2019.00008.1)
- [24] Rahman MS, Howlader T, Masud MS, Rahman ML. Association of low-birth weight with malnutrition in children under five years in Bangladesh: do mother's education, socio-economic status, and birth interval matter?. *PloS one*. 2016 Jun; 11(6): e0157814. doi: [10.1371/journal.pone.0157814](https://doi.org/10.1371/journal.pone.0157814)
- [25] Nayak BS, Unnikrishnan B, George A, Mundkur SC,

- Guddattu V. Risk factors for malnutrition among preschool children in rural Karnataka: a case-control study. *BMC Public Health*. 2018 Dec; 18(1): 1-8. doi: [10.1186/s12889-018-5124-3](https://doi.org/10.1186/s12889-018-5124-3)
- [26] Siddiqui F, Salam RA, Lassi ZS, Das JK. The intertwined relationship between malnutrition and poverty. *Frontiers in Public Health*. 2020 Aug; 8: 1-8 doi: [10.3389/fpubh.2020.00453](https://doi.org/10.3389/fpubh.2020.00453)
- [27] Benelli E, Trombetta A, Badina L, Andrade S, Zamagni G, Prisco A, et al. Risk factors for discontinuing oral immunotherapy in children with persistent cow milk allergy. *Immunity, Inflammation and Disease*. 2022 Jul; 10(7): e668. doi: [10.1002/iid3.668](https://doi.org/10.1002/iid3.668)
- [28] Njombwa CA, Moreira V, Williams C, Aryana K, Matumba L. Aflatoxin M1 in raw cow milk and associated hepatocellular carcinoma risk among dairy farming households in Malawi. *Mycotoxin research*. 2021 Feb; 37(1): 89-96. doi: [10.1007/s12550-020-00417-5](https://doi.org/10.1007/s12550-020-00417-5)
- [29] Larson-Nath C and Goday P. Malnutrition in children with chronic disease. *Nutrition in Clinical Practice*. 2019 Jun; 34(3): 349-58. doi: [10.1002/ncp.10274](https://doi.org/10.1002/ncp.10274)
- [30] Gavhi F, Kuonza L, Musekiwa A, Motaze NV. Factors associated with mortality in children under five years old hospitalized for Severe Acute Malnutrition in Limpopo province, South Africa, 2014-2018: A cross-sectional analytic study. *PloS one*. 2020 May; 15(5): e0232838. doi: [10.1371/journal.pone.0232838](https://doi.org/10.1371/journal.pone.0232838)
- [31] Gizaw Z, Woldu W, Bitew BD. Acute malnutrition among children aged 6-59 months of the nomadic population in Hadaleala district, Afar region, northeast Ethiopia. *Italian journal of pediatrics*. 2018 Dec; 44(1): 1-0. doi: [10.1186/s13052-018-0457-1](https://doi.org/10.1186/s13052-018-0457-1)
- [32] Azeez OI. Assessing the impact of water, sanitation and hygiene (wash) on diarrheal disease and malnutrition among children under-five in Chad (Doctoral dissertation). 2021.