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Knowledge, Attitude And Practices Of Mothers Regarding Breastfeeding Having Malnourished Children Under 5 Years Age Bracket: A Cross Sectional Study Of Children Hospital Multan, Pakistan

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Abstract

The state of malnourishment among children <5 years age span is the major public health issue around the globe. This under nourished state of child has multitude socio-demographic, economic and medical dynamics. Adequate mothers' nutritional knowledge along with positive attitude about breastfeeding and complementary feeding practices can be used as the combat tool to avoid malnourishment among children. Present study designed to know the KAP of mothers regarding breastfeeding and complementary feeding of malnourished children. Researcher used quantitative research design and select N=485 mothers visiting the targeted stabilization center of Children Hospital Multan through simple random sampling technique. The findings of the study revealed that there is a significant and positive relationship between breast feeding duration and malnourishment among children <5 years age span. Moreover, lack of knowledge, negative attitude and improper practices of mothers about breastfeeding becomes the major cause of child malnourishment. Role of media in provision of logical arguments and awareness campaigns along with the support provision by health care professionals can combat the pathetic situation of malnourishment in the study vicinity.

Keywords: Knowledge, Attitude, Practices, Breastfeeding, Malnourishment, Cross sectional.

1. Introduction

Malnourishment is the accentuated phenomenon in social, public health and medical domains (Gupta et al., 2010; Sharma & Byrne, 2016). The socio-medical issue is responsible for more than 300,000 deaths among <5 years children in the developing countries around the globe (Giashuddin et al., 2003; Mengistu et al., 2013).

Breast feeding is the process in which the milk is given from the breast of mothers to infants. This lactation process is considered to be the foremost and salient source of nourishment provision for the children (Jamro et al., 2012). The enriched breast milk is called "Colostrum" which is produced in the body of mother immediately after birth of infant. This thickened form of milk comprised of antibodies, higher substance of protein, fat solvent nutrients and electrolytes that protects the children against various inflammatory diseases (Madhu et al., 2009). Knowledge, Attitude and Practices (KAP) about breastfeeding is the major tool to combat malnourishment among children <5 years of age bracket (Amini et al., 2013; Pandey et al., 2015; Tyndall et al., 2016).

1.1. Global, South Asian and Pakistani context

The global perspective demonstrated that more than 50% children of <5 years age span are continuously affected by malnourishment. This malnourished state of children becomes the leading cause of their morbidity and mortality (Kalanda et al., 2006; Marriott et al., 2012). The other connective factor for malnourishment among children is mothers' age, their breastfeeding status, maternal training, working status, antenatal visits,usage of contraceptives and intake of sufficient nutritional needs (Hien & Kam, 2008; Nnyepi et al., 2006; Onis et al., 2000).

The South Asian perspective is also worthy to mention as it comprised of >26.8 million malnourished children on average. In approximation, half percentage of newborn babies in South Asian countries is not breastfeed and 66% babies undergone through exclusive breastfeeding. Likewise, the nutritional needs of a newborn are fulfilled by their adequate nutritional supply through breast feeding (Berti et al., 2008; Brown, 2000). The major factors for the underweight children mentioned by Lutter et al. (2011); Nahar et al. (2010) were related with poverty, economic deprivation, poor education level, inadequate diet and low cognitive abilities.

The health phenomenon of malnourishment <5 years children is at its pathetic stage in Pakistan (Laghari et al., 2015). The major issues associated with this phenomenon are poverty, weakness, illness and absence of nutritional supplements provision to children (Babar et al., 2010). Child malnourishment is also related with micronutrient deficiencies, delays in physical examinations and ignoring the children during illness or disease (Khan et al., 2016; Khattak et al., 2017).

1.2. KAP about breastfeeding and factors associated with malnourishment among children <5 years age bracket

Mothers' KAP about the nutritional status of the child become the basic tool to avoid malnourishment. This KAP triangle centers around the breastfeeding status of the children (Hamad, 2015). It mainly comprises of duration and frequency of breastfeeding, appropriate age for starting solid food to child, type of food during illness, mother's perception about health status of a child and attitude towards breastfeeding to control malnourishment among children (Tontisirin & Bhattacharjee, 2008). There are various factors that are associated with malnourished state of the children <5 years age bracket. Malnourishment state is predicted through appetite, family size, economic status and poor dietary practices (Skouteris et al., 2014). The relevant familial factors are parental education, family type and KAP about the breastfeeding practices (Marshall et al., 2014).

1.3. Objectives

Based on the gaps identified in the previous literature, the following research objectives were constructed;

1. To investigate the demographic correlates of mothers having malnourished children <5 years of age group.
2. To find out the relationship between malnutrition, awareness about breastfeeding and complementary feeding of children <5 years age bracket.
3. To find out the KAP of mothers regarding breastfeeding and its effects on malnourishment of children <5 years age span.
4. To give recommendations about the effects of malnourishment on child health <5 years age span.

2. Methods and Materials

The present section explain research design to address the KAP of mothers towards breast feeding of their malnourished children <5 years of age bracket. Quantitative research design was used in which the data was collected through cross sectional approach during the research process.

2.1. Universe and Target population

The universe of the present study was all the mothers of malnourished children <5 years age span in children hospitals of Multan city, Pakistan. In this regard, the target population was the mothers visiting Children Hospital, Multan as it was the only stabilization center working in the targeted locale for the treatment of malnourished children. For the selection of respondents, the researchers espoused the subsequent inclusion and exclusion criterion. Accordingly, the inclusion criterion was based on mothers i) who had malnourished children <5 years of age span ii) visiting as outdoor patients iii) must be in the reproductive age span iv) must be in the breast feeding stage and v) specifically visiting the targeted hospitals for the purpose of their children malnourished state. Conversely, those women were excluded from the sample i) who were visiting the hospitals for any other malfunctioning of their children (regardless of malnourishment) ii) mothers failed to give response iii) who were not the real mothers but visitors (relative/neighbor/guardian/any other) with the malnourished children.

2.2. Sampling technique and tool for data collection

The researcher used simple random sampling technique for the selection of sample. A total of 1732 mothers who visited the targeted hospital in three months i.e. April=575, May=674, June=483 were approached. N=485 mothers were selected as subset of population. Interview schedule was used as the basic tool of data collection which comprised of both open and close ended questions. The tool was divided into five major sections i) demographics of the respondents ii) KAP of mothers about breastfeeding having malnourished children iii) economic factors affecting child malnourished state and iv) effects of malnutrition on child physical and mental health.

2.3. Pre-testing and data collection process

The researchers pretest 10 questionnaires and incooperate the recommended changes (by the respondents) in the data collection tool. In accordance with the suggestions, the researchers excluded some questions i.e. i) role of good nutrition in child growth and ii) type of food given to the child during illness. Moreover, one question was added in the questionnaire i.e. the major factors affecting the malnourishment during first five years of child age bracket.

Relating this, the subsequent steps were taken for the data collection process i) first author obtained the recommendation letter for the data collection from department of Sociology, Bahauddin Zakariya University, Multan and submitted to the administrative office of Children

Hospital Multan ii) Consent form was obtained from administrator office in order to interview the mothers and get measurement scales for the targeted objectives of the study iii) Alternative opt out letters were also provided to the respondents so that if any respondent was not willing to participate can quit at any time of the research process iv) Confidentiality and anonymity was ensured by the researcher to the participant.

2.4. Ethical considerations

Ethical considerations were also followed by the researchers during the research process by using informed consent, alternative opt out permission, anonymity and confidentiality. As the present article was the part of M.Phil Research of the first author, therefore it was presented in front of ethical review faculty in department of Sociology, Bahauddin Zakaryia University, and Multan. The review committee approved the major ethical issues of the research.

2.5. Measuring instruments

The basic measurement scales were weight and height of the child. Accordingly, the weight of the malnourished child was measured by using the Salter Weigh Tronix Ltd (scale range of 100g-25kg). The weight of the child was taken in nudity before the data collection process. The height of each child was measured by using Stadio meter based on U.N Specifications (child age ranges from 24-60 months). The height must be figure out on 0.1 centimeter parameter. The process of weight and height measures was done before interviewing mothers. To measure the mother's attitude towards infant feeding, the researchers use "The Lowa Infant Feeding Attitude Scale". This scale was based on 17 questions statements in which each questions statement is based on five point Likert scale ranging from strongly agree to strongly disagree. This scale was divided into 2 parts (a) Breastfeeding (b) Formula milk feeding.

2.6. Data analysis

For statistical data analysis, the researcher used coding, decoding and recoding process for categorizing the responses in the mathematical form. The mathematical data form was quite easier and statistically more reliable for statistical analysis. After the process of coding, decoding and recoding, the data was organized and arranged for entering in computer. The questionnaires were added one by one in SPSS software (ver-21). Frequency, percentage, chi-square goodness of fit test, correlation and simple linear regression statistical analysis was applied by the researcher to find out the relationship among the study variables.

3. Results

Table No. 3.1. Demographic correlates of the respondents (N=485)

Variables used	Frequency (Percentage)	Variables used	Frequency (Percentage)
Mother age		**Child length**	
15-18 years	62 (12.8)	50-60cm	172 (35.5)
19-34 years	397 (81.8)	61-70cm	168 (34.6)
35-40 years	26 (5.4)	71-80cm	100 (20.6)
Child age		81-90cm	45 (9.3)
2-6 months	131 (27.0)	**Child weight**	
7-12 months	126 (26.0)	2.5-4.5kg	179 (36.9)
1-2 years	160 (33.0)	4.6-6.6kg	162 (33.4)

>2 years	68 (14.0)	6.7-8.7kg	100 (20.6)
Gender		8.8-10.8kg	44 (9.1)
Male	268 (55.3)	**Birth order**	
Female	217 (44.7)	1 to 2	241 (49.7)
Mothers education		3 to 4	193 (39.8)
Illiterate/equivalent	301 (62.1)	5 to 6	51 (10.5)
Primary/equivalent	116 (23.9)	**Child size at birth**	
Secondary/equivalent	50 (10.3)	Larger than normal size	03 (0.6)
Higher/equivalent	18 (3.7)	Normal size	336 (69.3)
Residence		Smaller than normal size	140 (28.9)
Rural	284 (58.6)	Don't know	6 (1.2)
Urban	201 (41.4)		

Demographic correlates of the respondents'

Table No. 3.1 demonstrated the mothers response on major demographic factors affecting the malnourished state and breastfeeding practices among children <5 years of age span. The results show that the highest percentile of women resides in 19-34 years age bracket (N=397, 81.9%). The highest percentage of respondents children were between 1-2 months of age group (N=160, 33.0%). The gender differentials illustrate that N=268 (55.3%) were males while N=217 (44.7%) were females. The residential status shows the highest percentage of sampled women belonged to rural areas i.e. N=284 (58.6%). Mothers education illustrated that N=301 (62.1%) mothers were illiterate or having equivalent education level. The variable of child length and weight demonstrated that N=172 (35.5%) respondents were having children with 50-60 cm of length while N=179 (36.9%) were having 2.5-4.5 kg weight. The birth order revealed that the highest percentage of respondents i.e. N=241 (49.7%) had the birth order in between 1-2. In extension, the highest percentile of respondents agreed that their children were of the normal size at the time of birth (N=336, 69.3%).

Table No. 3.2 Correlation between malnutrition, awareness about breastfeeding and complementary feeding of children <5 years age bracket (N=485)

Variables	BFI	MN	NI	TOSFI	MIN	AFSF	DDI	PANS	HSB	DOBF	CFP	EBF	BFS
BFI	1	.193**	.227**	.041	.204**	.592**	.353**	.102*	.123**	.458**	.132**	.653**	.587**
MN		1	.332**	.017	-.066	.192**	.209**	.124**	.036	.236**	.054	.198**	.115
NI			1	-.019	-.025	.252**	.269**	.374**	.042	.220**	.059	.202**	.257**
TOSFI				1	.006	.164**	.167**	.087	.039	-.015	.025	.119*	.006

MIN					1	.242**	.011	.058	.075	.051	.313**	.031	.137*
AFSF						1	.289**	.121**	.116*	.215**	.084	.259**	.360**
DDI							1	.077	.039	.176**	.086	.326**	.326**
PANS								1	.453**	.097*	.152**	.093*	.139*
HSB									1	.126**	.120**	.102*	.030
DOBF										1	.197**	.386**	.431**
CFP											1	.008	.174*
EBF												1	.323**

Note: *p<0.05, **p<0.01

Abbreviation details

BFI = Breast Feeding Importance, MN = Malnutrition, NI = Nutrition Importance, TOSFI = Type of Solid Foods Introduce, MIN = Micronutrient, AFSF= Age for Solid Food, DDI = Diet during Illnesses, PANS = Perception about Nutritional Status, HSB= Health Seeking Behavior, DOBF = Duration of Malnutrition, CFP= Complementary Feeding Practice, EBF = Exclusive Malnutrition, BFS = Malnutrition Status

Relationship between malnutrition, awareness about breastfeeding and complementary feeding among children <5 years age bracket

The results of Table No. 3.2 demonstrated the positive and significant correlation between breastfeeding importance, malnutrition, nutritional importance, age of solid food, diet during illness, perception about nutritional status, health seeking behavior, duration of breastfeeding, complementary feeding practices, exclusive malnutrition and malnutrition status.

Table No. 3.3. Association between lack of knowledge among mothers regarding importance and duration of breastfeeding and resulting malnutrition in children <5 years age bracket (N=485)

Statement	Response options	χ^2	p (Level of significance)	
Causes of malnutrition in children between 0-5 years	Poor hygienic condition in preparing child food Poverty, unsafe water, disease, infection I don't know	24.37	0.000***	<0.001
Signs and symptoms of malnutrition in children	Vomiting Skin become thin, inelastic, dry or take long time in recovery from infections I don't know	14.82	.022**	<0.01
The child (He/she) is malnourished	Child will be crying Child body immunity will not be well build up and lead to anemia and death I don't know	13.41	.037***	<0.001
The nutrients found in various food you give to your child	Yes No	43.56	.000***	<0.001
Knowledge about source of calcium in food	Milk Yogurt Fruits I don't know	42.56	.000**	<0.01
Knowledge about source of vitamin-D in food	Direct sun light Formula milk Cow milk I don't know	54.72	.000**	<0.01
Knowledge about source of iron in food	Meat Eggs Vegetables Dried fruits I don't know	55.90	.000*	<0.05

Note: ***p<0.01**p<0.01, *p<0.05

Association between lack of knowledge among mothers regarding importance and duration of breastfeeding and resulting malnutrition in children <5 years age bracket

The results of Table No. 3.3 shows that lack of knowledge has the larger and far reaching effect on breast feeding practices among mothers and malnourishment among their children. The major mentioned causes of malnourishment are poor hygienic conditions in preparing child food, poverty, unsafe water, disease and infection. In this regard, χ^2 and p value shows that these mentioned causes are the major predictors of malnourished state of children (χ^2=24.37, p=0.000***<0.001). The other significant statement about the lack of mothers' knowledge about malnourishment of children is signs and symptoms of malnourishment of children (significant at p=022**<0.01, χ^2=14.82). The malnourished state of the child is demonstrated through child crying state, less body immunity of child (leading towards anemia and mortality) and

don't know response statements. The chi-square tests also revealed the significance of this statement (χ^2=13.41, p=0.037***<0.001). The knowledge of mother is also centered on the nutritional status of the food given to the child. As the sampled mothers were mostly illiterate (also shown in demographic profile of the respondents'), therefore they admitted that they have lack of knowledge as they do not know about the nutritional content in the food (χ^2=43.56, p=0.000***<0.001). The results also demonstrated that the major parameter for lack of mothers' knowledge is the source of calcium, vitamin D and iron in food of children. The results also divulged that there is an association between lack of mothers knowledge about calcium (χ^2=42.56, p=0.000**<0.01), vitamin D (χ^2=54.72, p=0.000**<0.01), iron intake (χ^2=55.90, p=0.000*<0.05) and resulting malnourished state of the children.

Table No. 3.4. Attitude of mothers regarding role of breastfeeding for the child nutritional state and avoidance of their malnourished conditions (N=485)

Statement	**Options**	**χ^2**	**p**	
Attitude about breastfeeding	Yes No	5.29	0.023**	<0.01
The reason for not giving breast milk to your baby	Insufficient milk Child refuse Mother illness Child illness	3.00	.809	Ns
You give breast milk to your baby after delivery	Immediate After Birth After 1 day After 2 or 3 days Don't feed	4.80	0.569*	<0.05

Note: **p<0.01, *p<0.05

Attitude of mothers regarding role of breastfeeding for the child nutritional state <5 years age bracket and avoidance of their malnourished conditions

The results of the analysis illustrated the poor attitude of sampled respondents regarding the role of breastfeeding for fulfilling the nutritional status of their children <5 years age bracket. The chi-square test shows that most of the sampled women shows the neutral attitude of women regarding their breastfeeding (χ^2=5.29, p=0.0823**<0.01) to avoid malnourishment among children. The responses of the women were also significant as they gave milk to their children after delivery (χ^2=4.80, p=0.569*<0.05) (see Table No. 3.4).

Table No. 3.5. Association between poor complementary feeding practices of mothers and malnutrition in children <5 years age bracket (N=485)

Statements	**Response Options**	χ^2	**p (Level of significance)**	
I make my child to have breakfast	Rarely Always	14.53	0.001***	<0.001
I care my child to have a meal three times in a day	Rarely Always	24.40	0.000***	<0.001
I don't fry or boil when preparing food	Rarely Always	11.57	0.003**	<0.01
I cook legume meal two times in a weak	Rarely Always	.28	0.67	(Ns)
I make my child to eat an egg everyday	Rarely Always	26.37	.000***	<0.001
I make my child to eat fish two times in weak	Rarely Always	.97	0.641	(Ns)
I make my child to eat nuts as snacks	Rarely Always	0.381	.827	(Ns)
I make my child to drink one glass of milk in a day	Rarely Always	4.35	0.113	(Ns)
I prefer fruits, milk, instead of biscuits or chocolate for child in snacks	Rarely Always	12.78	0.001*	<0.05
I make my child to eat one portion of cheese on daily basis	Rarely Always	0.335	0.846	(Ns)
Prefer milk instead of pastry for child	Rarely Always	1.28	0.525	(Ns)
Make my child to eat three portion of vegetables per day	Rarely Always	8.41	0.015*	<0.05
Prefer fresh juice for child	Rarely Always	12.59	0.002**	<0.01
Make my child to eat two portion of fruits per day	Rarely Always	19.27	0.001***	<0.001
Prepare salad in each meal for my child	Rarely Always	1.54	.461	(Ns)
Ban ketchup, mayonnaise or sauces for my child	Rarely Always	0.222	0.895	(Ns)
Ban cola, pups, or beverage for my child	Rarely Always	5.01	0.081*	<0.05
Avoidance of fast food for child	Rarely Always	3.55	0.169	(Ns)

Avoid artificially flavored food to my child	Rarely Always	7.00	0.030**	<0.01
Don't give butter spreads bread to my child	Rarely Always	20.21	0.001***	<0.001

Note: ***p<0.001, **p<0.01, *p<0.05

Association between poor complementary feeding practices of mothers and malnutrition in children <5 years age bracket

The results of Table No. 3.5 show the complementary feeding practices of mothers and resulting malnourishment in their children <5 years age bracket. In this regard, the mothers agreed that they prepare the breakfast for their child and also prepare meal (three times in a day). These statements become significant at χ^2=14.53, p=0.000***<0.001 level of significance. Afterwards, the respondents negate to use frying and boiling techniques for preparing food (χ^2=11.57, p=0.003**<0.01) and prefer to give an egg to their child every day (χ^2=26.37, p=0.000***<0.001). Contrary to these mentioned statements, the preparation of legume food two times a week, provision of fish as food two times a week and eating of nuts and snacks to children becomes the non-significant parameters for mothers practices towards avoiding malnourishment of their children <5 years age bracket (p=Ns). The results of the study also demonstrated that the practice of providing one glass of milk in a day, one portion of cheese, preference of milk over chocolates and avoidance of fast food from children also becomes the insignificant parameters for avoiding malnourishment. The respondents reported that they have to provide the fast food, sweets and chocolates to their children. Moreover, the respondents also argued that they were unable to give a good portion of fish, protein, cheese and milk in their food due to economic burden. The hypothetical analysis also revealed that the respondents prohibited the fizzy drinks and various beverages for their children (χ^2=5.01, p=0.081*<0.05), provide them three portions of vegetables in a day (χ^2=8.41, p=0.015*<0.05) and tried to prefer milk and fruit instead of chocolates and biscuits (p=0.001*<0.05). The preference of fresh juice to children (p=0.002**<0.01), provision of fruit two times a day (p=0.001***<0.001), avoidance of artificially flavored food to the child (χ^2=7.00, p=0.030*<0.01) and butter spreads are the major practices of mothers for addressing the malnourished condition of their children <5 years age bracket (χ^2=20.21, p=0.001***<0.001).

Table No. 3.6 Relationship between effects of malnourishment on child health <5 years age bracket (N=485)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta (β)		
(Constant)	-3.237	2.517		-1.286	.200
Malnutrition	.005	.072	.003	.069	.945
Nutrition Importance	.007	.029	.012	.224	.823
Type of Solid Foods Introduce	.002	.057	.002	.035	.972

Micronutrient	.067	.044	.083	1.540	.125
Age for Solid Food	.491	.049	.554	9.973	.000***
Diet During Illnesses	-.049	.027	-.101	-1.847	.067
Perception about Nutritional Status	-.017	.031	-.033	-.552	.582
Health Seeking Behavior	-.026	.024	-.059	-1.045	.298
Duration breast feeding	.190	.078	.130	2.434	.016**
Complementary Feeding Practice	.006	.031	.010	.203	.839
Exclusive Malnutrition	.158	.046	.189	3.388	.001***
Malnutrition Status	.289	.060	.273	4.839	.000***

Note: R= 0.796, R2=0.633, F= 22.56, **P<0.05, ***P<0.01

Effects of malnourishment on child health <5 years age bracket

The results of simple linear regression analysis in Table No. 3.6 illustrated that age of solid food intake has the significant and positive effect on child health (standardized β=.554, p=0.000***). Afterwards, malnutrition status and exclusive malnutrition also affects the child health (standardized β=.273, p=0.000***) (standardized β=.189, p=0.001***). This positive and significant relationship is also evident with the effect of breast feeding duration that protects the child from malnourishment (standardized β=.130, p=0.016**).

4. Discussion and Conclusion

In consistence with the present study findings, demographics of mothers such as illiteracy rate becomes the significant predictor of malnourishment among children <5 years of age span (Borooah, 2004; Khattak et al., 2017). At that juncture, Miller & Rodgers (2009) also demonstrated the role of family income in purchasing the balanced food for children. The intake of this balanced food can further have direct implications on avoidance of malnourishment among children.

Despite the demographic dynamics, Rayhan & Khan (2006) mentioned that the major associated factor of malnourishment is KAP of mothers about breastfeeding of their infants. Previous study conducted by Insel et al. (2003) validated that mothers' nutritional knowledge is important for children health outcomes. This research endorsed the present study findings that 90.1% mothers have poor knowledge about the micronutrients found in different types of meals given to their children (demonstrated as lack of knowledge in KAP concept) (Goudet et al., 2017).

Previous studies from Pakistan also validated that every child should receive at least six months of exclusive breastfeeding which can be extended up to 2 years with the addition of solid foods with adequate micronutrients. The mothers' knowledge about child malnourishment and importance of breastfeeding is also validated by the research conducted by Hanif (2011); Morisky et al. (2002). In context of Pakistan, Memon et al. (2010) studied that the mothers have 66%-68% knowledge about infant breastfeeding practices in Jamshoro (Pakistan). This study also showed that mothers were moderately knowledgeable about the presence of nutritional contents about vitamin A, yellow-colored vegetable, fish and meat. In addition, Ekambaram et al. (2010); Gupta et al. (2010) also assessed that adequate KAP of mothers about breastfeeding can protect the children from malnourishment.

Contrary to our present findings, Jamil et al. (2018) conducted the relevant research in hospitals of Lahore, Pakistan and found that mothers have positive attitude towards breastfeeding of their children. Despite positive attitude, both breastfeeding and formula milk practices were used by the mothers of newly born children. In contrary, our study findings emphasized that mothers have neutral attitude about the breastfeeding practices as the major tool to combat malnourishment among children <5 years age bracket. In agreement with our study findings, the empirical research conducted on 120 children (<5 years age span) by Reiher & Mohammadnezhad (2017) found that mothers were ignorant about the nutritional status of their children which leads towards acute/chronic malnourishment among their children.

In relevance with the present study findings, Edith & Priya (2016); Nankumbi & Muliira (2015) described that the major reasons behind the malnourishment of the children are lack of knowledge, negative attitude of mothers about breastfeeding, financial inadequacies of the mothers about the malnourished state of their children, obsolete cultural beliefs about food intake of children as well as benefits of breastfeeding for combating with the malnourished state of their children. In the recent years, Ongosi (2011) also endorsed that adequate KAP of mothers about breastfeeding can lessen the chances of malnourishment among their children.

In conclusion, the demographic correlates such as mothers education and income level affects the nutritional status of their children <5 years age cohort. Based on the present study findings it is evident that mothers who have poor knowledge about breastfeeding have malnourished children. In this regard, adequate KAP about breastfeeding practices can avoid the situation of malnourishment among children <5 years age bracket.

5. Limitations of the study and future research directions

Although the researches tried to avoid the maximum barriers from the research process but still some limitations exist.

1. Due to lack of time and economic resources, the research was conducted in one stabilization center of Multan city, Pakistan. Further researches must be conducted in different stabilization centers to avoid the issues of sample generalization.
2. The researcher selected only <5 years malnourished children but the phenomenon also prevailed in severity among >5 years children. Therefore, future researches must increase and categorize the age bands of children to evaluate their acute/chronic malnourished state.
3. Mothers' health and nutritional status also plays an imperative role on the size and health of newborn child. In this regard, these two variables must be included in the future researches for the assessment of malnourishment among children.
4. The present research is silent about the frequency of exclusive breastfeeding among mothers. Future researches must address these dynamics to empirically investigate the role of these impediments in changing the nutritional status of the child.

6. Recommendations

In light of above said findings, the following recommendations are put forward by the researchers.

1. Media can play an imperative role in disseminating the logical arguments and awareness campaigns about the importance of breastfeeding in

combating with malnourishment of children <5 years age bracket.

2. Health professionals should support mothers by giving them adequate information, medical support and encouragement to reduce the malnourishment among children of <5 years age span.
3. There must be short term trainings for changing the KAP of mothers about breastfeeding and its relationship with avoidance of malnourishment among <5 years age cohort.
4. Professional health care providers should conduct community based awareness trainings for the women about the role of nutritional contents in physical and mental health of children <5 years age duration.

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