

Assessment of Factors Associated with Malnutrition among Under Five Years Age Children at Machakel Woreda, Northwest Ethiopia: A Case Control Study

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Abstract

Introduction; malnutrition continues to be a significant public health and development concern not only in developing country but also in the world. It is a serious problem because it is causing the deaths of 3.5 million children under 5 years old per- year. Its magnitude is still highest in Ethiopia as well as in Amhara Region that remains a major public health problem.

Objective: The main aim of this study is to assess associated factors of malnutrition on under five years children in Machakel Woreda.

Methods: Unmatched Case control study was conducted. Cases were children of aged 6-59 months who have malnutrition (weight for height <2sd, weight for age ≤ 2Sd, height for age ≤ 2Sd, Mid-Upper Arm Circumstance (MUAC) <12 cm, if there is edema) and controls were 6-59 months of children those who have not malnutrition (weight for height ≥ 2sd, weight for age ≥ 2Sd, height for age ≥ 2sd, MUAC>12 cm, there is no edema). A consecutive sampling technique was employ to select study subjects for this study. Logistic regression was used to analyze data by using backward variable selection technique.

Result: A total of 102 cases and 201 controls were included in the study with overall response rate of 94.4%. Sixty five (63.20%) of cases and 49 (24.40%) controls had fathers that cannot read and write. Thirty nine (38.23%) of cases and 44(21.89%) of controls had history of diarrheal episode. Those children whose family use drinking water from unprotected source were 3 times more likely to have malnutrition as compared to those children whose family use drinking water from protected source with [AOR=3.04, 95%CI (1.01, 9.17)].

Conclusion: The fining of this study revealed that inappropriate child carrying and feeding practice were strongly associated with under five malnutrition. Therefore, the responsible body should implement on nutritional intervention activities at all level of the community.

Keywords: Malnutrition; Under five; Weighing scales; Machakel Woreda

Introduction

Child malnutrition is one of the measures of health status that the World Health Organization (WHO) recommends for equity in health. The term malnutrition generally refers to both under nutrition and over nutrition [1,2]. Stunting, wasting, and underweight are among those Anthropometric indicators are commonly use to measure malnutrition in a population of under five children. Underweight (low weight-for-age) reflects both low height-for-age and low weight-for-age and therefore reflects both cumulative and acute exposures of malnutrition [3].

The Millennium Development Goals (MDGs) state as the first goal “to halve between 1990 and 2015 the proportion of people who suffer from hunger” [2]. A magnitude of malnutrition has been shown through various studies that children and women are the primary victims of malnutrition who suffer the most lasting consequences. It is closely related to nutrition security [4].

Malnutrition is a serious problem because it causing the deaths of 3.5 million children under 5 years old per- year in the world, as well as it is at third level in the world of the disease burden in this age group [5]. Even thought globally, childhood malnutrition declined relatively during the year 1990's; its prevalence in Africa actually increased even during 1990' [6]. More than 25% under five children in the developing world are malnourished which accounts about 143 million children. Among these 143 million malnourished children, nearly three quarters

live in just 10 countries in Sub-Saharan Africa region and more than one-quarter of children under five are malnourished (in Nigeria and Ethiopia alone accounts more than 33%) [7].

Under nutrition, which is focus of this study, conversely has been estimated to be an underlying cause for around half of all child deaths worldwide. it has different types of measurements [5]. Due to this fact, malnutrition continues to be a significant public health and development concern not only in developing country but also in the world [2]. Then child malnutrition still remains a public health problem mostly in developing countries including Ethiopia [8].

According to Ethiopia demographic health survey of 2011 that in Ethiopia 29 percent of children under age five are underweight and 9%

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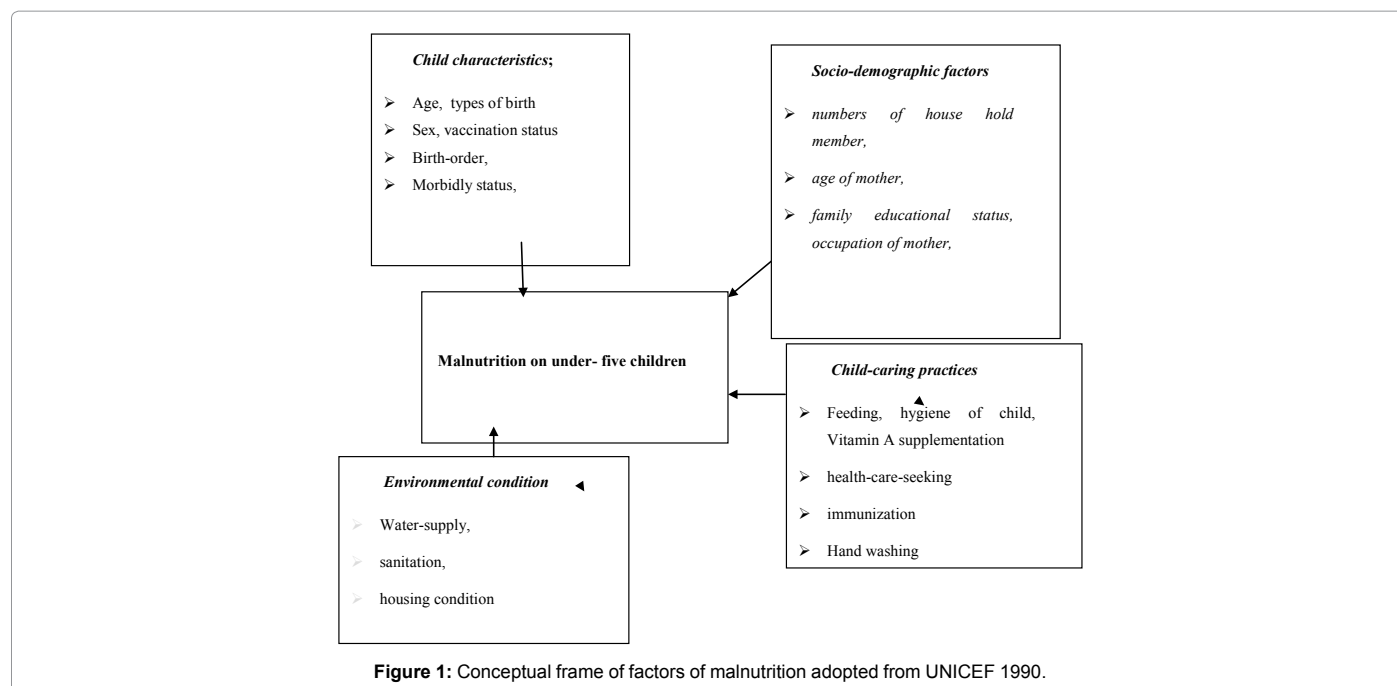


Figure 1: Conceptual frame of factors of malnutrition adopted from UNICEF 1990.

are severely underweight and it is highest in Amhara Region which is 33.4%. The proportion of under-weight children vary with each age cohort. And it is highest in the age groups 24-35 months (34%) and lowest among those under six months (10%). This may be their exposure infections and susceptible illness because foods for weaning are typically introduced and they expose to the environment those children in 24-35 age groups. This is due to inappropriate or inadequate feeding practices may contribute to -influence nutritional status among children in these age groups [9].

Particularly, in Amhara region the magnitude of problem which measured in terms of three anthropometric indexes height-for-age, weight-forage and W/H that 43.2%, 49.2% and 14.8% of in the survey were found to be stunted, underweight and wasted, respectively. But the magnitude of malnutrition vary with their age changes during the first three years of life the data show that highest proportion of malnutrition is observed in age group 13-24 months (51%) followed by age group 25-36 months (45%); while child stunting is lowest among infants in the youngest age group of 0-6 months (16.7%) [10].

Children's health is often evaluated as a function of growth by using anthropometrical measurements, usually weight and length (or height) [11]. Child malnutrition remains a major public health problem in Ethiopia as well as in the study area. Malnutrition cannot be tackled without understanding its causes that is why the study was crucial to identify underlining factors of Malnutrition among under five years children's in the study area. Therefore, the main aim of this study was to identify the associated factors of child malnutrition in Machakel woreda, East Gojjam Zone, North West of Ethiopia (Figure 1).

Methods and Materials

Study setting and period

The study was conducted from March – May 2013 in Machakel Woreda, East Gojjam zone of Amhara Regional state, Ethiopia. Machakel Woreda has 25 kebeles which is one urban and 24 rural kebeles and number of small 'Gotes'. There are six health centers, 25 health posts and seven private health facilities to access health service

for 130,898 total populations [12]. Machakel Woreda is a mountainous area with full of ups and down topography and it covers 2250.68 square km of land area. There are three agro-ecological zones in the district in a range of 1200-to-3200 meter altitude. The majority of Woreda classified (50%) as midland, 2% as high land and 48% as low land with an annual rain fall of 900-1800 ml.

Study design and populations

An Institutional based unmatched Case-control study was conducted. The source populations for study were all children under five years of age living in the district. The study populations for study were selected children of aged 6-59 months who have malnutrition (weight for height < 2sd, weight for age ≤ 2Sd, height for age ≤ 2Sd, *Mid-Upper Arm Circumstance (MUAC)* <12 cm, if there is edema) for Cases and selected 6-59 months of children those who have not malnutrition (weight for height ≥ 2sd, weight for age ≥ 2Sd, height for age ≥ 2sd, *Mid-Upper Arm Circumstance (MUAC)* >12 cm, there is no edema) for Controls, and Mothers' registered as district member within a year. Mothers of who were seriously ill and could not communicate were excluded from the study.

Sample Size and Sampling

The required sample size was calculated by taking into account the major associated factor and using the Statistical program of the EPI INFO using two population proportions formula. In this regard, a 5% level of significance (two-sided) or the hypothesis of no significant difference, a power of 80% and a two to one allocation ratio of not malnourished to malnourished (2:1) was assumed. Taking paternal education as major associated factor to be studied, i.e. 58.8% of malnourished children of uneducated fathers (cases) and 41.2% of children who were well nourished are uneducated father (controls). Based on the above assumptions, with an additional 5% is added for non-response the total sample size is 321 with 107 for cases and 214 for controls. First, three Health centers were selected purposively because these health centers are malnutrition children treatment center. Secondly, calculated sample was distributed to selected health centers proportionally based on monthly patient flows

experience of each health center. Then, Consecutive sampling technique was used to select the study participant for this study until the calculated sample size was attained.

Measurements

Structured questionnaire interviewer administered was used which was adapted from different literatures in English to enable the comparability of the finding and translated into Amharic language for field work purpose and back to English for checking language consistency. It consists of socio-economic, demographic, child characteristics, child caring practices, and environmental health condition. Salter scale and measuring board instrument was used to measure weight and height of children, respectively. Weight was measured with minimum clothing and no shoes using a Salter spring scale and beam balance in kilogram to the nearest of 0.1 digits. Weighing scales was calibrated with known weight object regularly. The ace scales indicators was checked against zero reading after weighing every child and edema measure apply pressure on upper side of both feet for three seconds. Edema was diagnosed if a bilateral depression (pitting) remained after the pressure was release but weight was not measure those who have edema. To identify retrospective morbidity of children, mothers were asked about any occurrence of illness during the past two weeks. Enumerators investigate to confirm nature of illness based on operational case definition and also ask to identify occurrence of measles in the past one year. Vaccination status of children were checked by observing immunization card and if not available mothers were asked to recall it. BCG vaccination was checked by observing scar on right (also left) arm.

Data collection methods

Twelve diploma health workers who were recruited from Machakel Woreda and nearby other Woreda located in the district for data collection based on their experience on prior data collection and three supervisors were also recruited. Interview was conducted with mothers of the children to fill the questionnaire. To ensure the quality of data three days training was given for both the data collectors and supervisors on the objective of the study and methods data collection, anthropometric measurement and data recording. The questionnaire was pre tested on 10% of the sample size out of study area on population with similar characteristics. The result of pre-test was analyzed and necessary modification was made prior to the actual data collection. The supervisors and principal investigator closely following the day to day data collection process and ensure completeness and consistency of the collected questionnaires on a daily basis.

Data processing and Analyses

Data were entered in EPI data 3.1 computer programs to minimize data entry error. The data entered were exported to Statistical Package for Social Sciences (SPSS) version 16 for analysis. Then recoded, categorized and sorted to facilitate its analysis. Descriptive analysis was used to describe the percentages and number distributions of the respondents by socio-demographic characteristics and other relevant variables in the study. Logistic regression was used to fit the data to identify factors associated with identify factors affect malnutrition. All explanatory variables that were associated with the outcome variable in bivariate analysis with p-value of 0.25 or less were included in the initial logistic models of multivariable analysis. The crude and adjusted odds ratio together with their corresponding 95% confidence intervals was computed. A P-value < 0.05 was considered to declare a result as statistically significant in this study. The result was presented in text, tables and graphs as based on the types of data.

Ethical consideration

Ethical clearance was obtained from College of Medicine and Health Sciences of Debre Markos University. Then officials at different levels in the study area were communicated through letters from College of Medicine and Health Sciences. Letters of permission was obtained from Machakel Woreda administrative and health office. Verbal informed consent was taken from each respondent prior to the interview after the purpose of the study was explained to them and joins those who face severely malnutrition children to out- patient therapeutic program. Confidentiality of the information assured and privacy of the respondents' was maintained.

Results

Socio-demographic Characteristics

A total of 107 cases and 214 controls were included in this study of which 102 cases and 201 controls were willing to participate with overall response rate of 94.4%. In this study indicated that 25 (62.5%) of case and 61 (50.0%) of control had family size greater than three respectively. Concerning maternal education, 86(84.3%) of cases and 198(98.5%) controls had mothers that cannot read and write. Concerning paternal education, 65 (63.20%) of cases and 49(24.40%) controls had fathers that cannot read and write. The majority of the mothers' occupation both in cases and control were housewife 90 (88.20%) and 139 (69.20%), respectively. Dominantly fathers were found as the only decision maker to use money in the family level in cases 59 (59.84%) and control 60 (29.85%). Table 1 concerning malnutrition status in age category of total cases 3 9(38%), 33 (32%), 15 (15%) and 15 (15%) of cases belongs

Explanatory variables	Case No (%)n=102	Control No(%)n=201
Religion		
Orthodox	102(100)	198(98.5)
Muslim	0(0.0)	3(1.4)
Education of mother		
Cannot read and write	86(84.3)	128(63.7)
Literate	16(15.7)	73(36.3)
Education of father		
Cannot read and write	65(63.7)	49(24.4)
Literate	37(36.3)	152(75.6)
Head of house hold		
Male	95(93.13)	174(86.56)
Female	7(6.8)	27(14.43)
Occupation of mother		
Merchant	10(9.8)	40(19.9)
Housewife	90(88.2)	139(69.2)
Employ	2(2)	22(10.9)
Decision maker to use money		
mostly mother	4(3.92)	17(8.45)
Mostly father	59(57.84)	60(29.85)
Both jointly	39(38.13)	124(61.69)
child sex		
Male	54(52.94)	101(50.24)
Female	48(47.06)	100(49.75)
Family size		
Less than three	15(37.5)	61(50.0)
Greater than three	25(62.5)	61(50.0)

Table 1: socio-demographic characteristic of cases and controls in Machakel woreda, Ethiopia, 2013.

to age category 6-12 months, 13-24 months, 25-36 months and 37-59 months, respectively.

Child Characteristics and Caring Practices

Of the total 77 (75.99%) mothers of cases and 118 (58.70%) mothers of controls were delivered at home. Of the total 48(47.05%) of case and 42(20.08%) of controls who were not immunized in BCG. Forty one (40.20%) of cases and 37 (18.40%) of control of had taken measles vaccination. The result of this study showed that 44 (43.13%) of cases and 33 (16.4%) of control were not given vitamin A supplementation. Eighty (78.43%) of cases and 108(53.23%) of control were faced health problem with-in last year like diarrhea, fever and measles. Fifty nine (57.84%) of mothers cases and 55 (53.92%) of mothers controls were squeeze out their first whereas 43 (42.16%) of mothers cases and 146 (46.08%) of mothers controls were not squeeze out their first (Table 2).

Environmental Health Conditions

The majority of households house made from corrugated iron sheet for both control and case 182 (90.50%) and 83 (81.73%), respectively. Households used unprotected drinking water source accounts 60 (58%) and 88 (43%) for both cases and controls respectively. Care givers poor hand Washing practices was found to be 35 (46.10%) in cases and 41 (53.90%) in controls (Table 3).

Determinants of Malnutrition

In order to investigate the association of independent variables with malnutrition both univariate and multivariate analysis were used. Those variables showed association with outcome variables at p-value of less than or equal to 0.25 in the univariate were selected as candidate variables for multivariable logistic regression analysis. The multivariable logistic regression analysis was used by taking all such factors into account simultaneously and only the following seven of the most

Explanatory variables	Case N(%) =102	Control N (%) =201
Immunization of pentavalent		
Yes	70 (68.62)	177(88.05)
No	32 (31.37)	24(11.95)
Immunization of measles		
Yes	61(59.80)	164(81.59)
No	41(40.20)	37(18.41)
Health problem		
Yes	80(78.40)	108(53.73)
No	22(21.60)	93(46.27)
Diarrhea in two weeks		
Yes	39(38.23)	44(21.89)
No	63(61.77)	157(78.11)
Has fever in two weeks		
Yes	26(25.49)	23(11.44)
No	76(74.51)	178(88.56)
Has measles case in the year		
Yes	5(4.90)	1(0.49)
No	97(95.10)	200(99.51)
Frequency of diarrhea		
Less than three per year	60(58.82)	82(80.40)
Greater than three per year	18(41.18)	10(19.60)

Table 2: Child characteristics and caring practices of cases and control in machakel woreda Ethiopia, 2013.

Explanatory variables	Case No(%)=102	Control No (%)=201
Hand washing practice of care giver		
After use latrine	35(34.32)	41(20.39)
Before food preparation	26(25.49)	52(25.87)
After cleaning child	7(6.86)	1(0.5)
Mostly after lunch	3(2.94)	1(0.5)
All	31(30.39)	106(52.74)
How wash care giver their hands		
Only with water	54(52.94)	62(30.84)
Some times with soap	42(41.18)	118(58.72)
Always with soap	6(5.88)	21(10.44)
Type of house		
Tickule	19(18.62)	19(9.5)
Corrugated iron sheet	83(81.38)	182(90.5)
separate animal house from main house		
Yes	62(60.78)	160(79.60)
No	40(39.22)	41(20.40)
Source of drinking water		
Unprotected	60(58.80)	88(43.80)
Protected	42(41.20)	113(56.20)

Table 3: Environmental health conditions which are factors under five children age malnutrition in machakel woreda, Ethiopia, 2013.

contributing factors remained to be significantly and independently associated with malnutrition.

Source of drinking water was showed statistically significant association with outcome variable. Those children whose family use drinking water from unprotected source were 3 times more likely to have malnutrition as compared to those children whose family use drinking water from protected source with [AOR=3.04, 95% CI (1.01, 9.17)] (P-value=0.047). Educational status of father was showed statistically significant association with outcome variable. Those children whose father's with illiterate were 5 times more likely to have malnutrition as compared to those with literate fathers [AOR=5.02, 95%CI (2.06, 13.14)] (p-value 0.001). Child care givers or mother's hand washing practices was showed statistically significant association with malnutrition. Children's of mothers who wash their hand only after visiting of latrine were 6 more likely to have malnutrition as compared to those who wash at every activity (before food preparation, after latrine use, before and after feeding, before and after cleaning of child) with [AOR=6.04, 95% CI (1.97,18.29)] (p-value=0.002). Frequency of diarrhea episode was showed statistically significant association with malnutrition. Children who had four and more times annual diarrheal episode was three times more likely to have malnutrition as compared to those faced diarrheal episodes less or equal to three per-year [AOR=3.16, 95%CI (1.37,11.49)] (p-value -0.011). Children vaccination status was showed statistically significant association with malnutrition. Children who were not properly vaccinated were 35 times more likely to have malnutrition when compared to that of vaccinated with appropriate dose with [AOR=35, 95% CI (1.75, 71.82)] (p-value=0.02). Squeeze out of first breast milk was showed statistically significant association with malnutrition. Those children whose mothers Squeezed out of first breast milk following delivery were 2 times more likely to have malnutrition as compared to those children's whose mothers not Squeezed out of first breast milk just following delivery [AOR=2.02, 95%CI (1.07-6.69)] (p-value -0.035). Mothers Decision making on use money was showed statistically significant association with malnutrition. Those children whose fathers mostly made decision on use money following delivery

Explanatory variables	Case N _q (%)=102	Control N _q (%)=201	COR(95%CI)	AOR (95% CI)	p-value
Source of drinking water					
Unprotected	60(58.8)	88(43.80)	1.834((1.132-2.973)	3.04(1.01-9.17)	0.047*
Protected	42(41.2)	113(56.2)	1.00	1.00	
Education of father					
Cannot read &write	65(63.7)	49(24.4)	5.45(3.25-9.133)	5.02(2.06-13.14)	0.001*
Literate	37(36.3)	152(75.6)	1.00	1.00	
Hand washing practice of care giver					
after use latrine	35(34.32)	41(20.39)	2.919(1.597-5.335)	6.04(1.97-18.29)	0.002*
before food preparation	26(25.49)	52(25.87)	1.71(0.92,3.17)	1.34(0.44,4.10)	0.64
after cleaning child	7(6.86)	1(0.5)	23.93(2.83,202)	*	0.99
mostly after lunch	3(2.94)	1(0.5)	10.25(1.03,102.4)	0.79(0.032,19.99)	0.88
All	31(30.39)	106(52.74)	1.00	1.00	
Diarrhea frequency episode					
three and less	60(87)	82(96.5)	1.00	1.00	
four and above	9(13)	3(3.5)	4(1.06-15.74)	3.96(1.37-11.49)	0.011*
Child vaccination status					
Yes	71(69.6)	177(88.1)	1.00	1.00	
No	31(30.4)	24(11.90)	3.2(1.76-5.88)	35(1.75-71.82)	0.02*
Squeeze out of first breast milk					
Yes	59(57.84)	55(53.92)	3.6(2.208,6.009)	2.02(1.07-6.69)	0.035*
No	43(42.16)	146(46.08)	1.00	1.00	
Decision maker to use money					
mostly mother	4(3.92)	17(8.45)	0.74(0.23,2.35)	*	0.99
mostly father	59(57.84)	60(29.85)	3.126(1.880-5.199)	5.68(2.09-15.43)	0.001*
both jointly	39(38.13)	124(61.69)	1.00	1.00	

Table 4: Adjusted regression analysis of factors significantly associated with malnutrition among under five years children in machakel woreda Ethiopia, 2013.

were 5.7 times more likely to have malnutrition as compared to those children's whose both families made decision jointly on use of money [AOR=5.68, 95%CI (2.09-15.43)] (p-value -0.001*) (Table 4).

Discussion

In order to successfully tackle the under five malnutrition problems in Ethiopia in general and in the present study areas in particular, there appears a need to investigate the contribution of a number of factors influencing malnutrition. Accordingly, this study has tried to look into factors associated with malnutrition in the study area by incorporating as many risk factors as possible.

The study revealed that the use of unprotected source of drinking water increased the risk of malnutrition three fold and above than protected water source. In the rural population of Ethiopia, there is lack access of safe drinking water and unhygienic behaviors are the major environmental problem for the transmission of common diseases. The trends of Ethiopia community to poor access of safe drinking water coverage for rural, urban and national level are 21%, 84% and 30%, respectively [13]. Lack of access and unprotected drinking water is closely related to incidence or episode of water borne diseases like diarrhea which contribute malnutrition [9,13]

Parental with illiteracy was significantly associated with the risk to develop malnutrition in children under the age of five. Similar finding was observed in North Gondar which increases threefold and above to develop a risk of malnutrition [14] but we found higher magnitude of malnutrition it may be because of study site variation.

Child care givers or mothers hand washing only at the time of after visiting latrine strongly contributes to malnutrition which was threefold higher than those mothers had practices hand washing at each activity. Similar finding was observed in Sudan. Complimentary feeding is important for children at the age of six month but food handling practices have its own negative effect on children health and nutrition. Higher prevalence of malnutrition (94.1%) was observed in children whose mothers' didn't wash their hand after handling of rubbish. Hand should be wash immediately after handling of any surface and before contact of children. Hand washing of the care giver is critically important to break the link between foods and drink intake and development of infection. Care givers need to wash their hand with clean water and soap before preparing food, before feeding baby and after visiting of toilet or disposing of child feces [13,15].

Diarrhea was one of the associated risk factors of malnutrition; in this study diarrhea increases the risk of malnutrition nearest to three times more likely than those who had not diarrhea. The finding of this study was similar with the study conducted in West Gojjam, Oromia and North Gondar which indicated that the risk of diarrhea associated with malnutrition [10,16,17].

Diarrhea is the leading cause of morbidity and mortality of children through dehydration and malnutrition. High magnitude of malnutrition observed among children who had diarrhea in the two weeks before the survey. This is clear because there is a reciprocal relationship with diarrhea leading to malnutrition and malnutrition predispose to diarrhea. The result of this study may suggest that children suffered

from longer and repeated episodes of diarrhea which determine to their nutritional status. Diarrheal diseases in children under the age of five are an indicator of lack of basic sanitation and its existence of episode between 4 up to 7 times in Ethiopia. However, in West Gojjam diarrhea in 2 weeks observation indicated with annual episode of 3 and above. It is easy to imagine that when the number of episodes increases highly affects the nutritional status of children [10,13,17].

The risks of malnutrition in unimmunized children were threefold times higher than that of immunized with appropriate age. Similar finding was observed in study conducted in Oromia Region Ginchi district and revealed that the risk malnutrition among children who didn't receive any vaccine dose was three times more associated to malnutrition than those who received vaccine dose [17]. But the study done in India revealed unimmunized children were 10 times more likely associated to malnutrition than those who immunized under five years children. The study observed in India is higher than that of Ginchi and this study. The reason may be attributed to the socio-demographic characteristics of population [9].

In this study, squeeze out of first milk was shown significant association with malnutrition. Children whose mothers' squeezed out colostrums were twofold more likely to have malnutrition than those who fed their children colostrums. Similar finding was observed in the study conducted in West Gojjam that revealed children whose mothers' squeezed out colostrums twofold times more likely contributes to malnutrition than who fed their children colostrums. More children deprived of colostrums (52.0%) were malnourished as compared to children who received it [10].

Colostrums breast feeding has many advantages such as; rich in vitamin 'A', help to intestinal mature prevent to infection because it contains antibiotic in nature. However colostrums feeding are recognized as if it was different from breast milk and they discard it because of its color and creamy nature. Then children may face high incidence, duration and severity of illnesses such as diarrhea which contribute to malnutrition [10].

The other risk factor of malnutrition is only paternal decision making to use money in the household. In this study, only paternal decision making to use money in the household was strongly associated with malnutrition among under five children than that of household decision made by both father and mother jointly. Similar finding was observed the study which was conducted in Ginchi in Oromia Region only paternal decision making to use money three times more associated to malnutrition than those who decided to use money jointly [17]

In conclusion this study has tried to come up with the conclusion; the following factors are contributed to the experience of malnutrition among under five in the study area. These factors are: appropriate child caring and feeding practices such as using unprotected source of water for drinking and frequency of diarrheal episode, child vaccination status, food handler or care giver poor hand washing practices, paternal decision making on use money for child care and squeezed out of Colostrums. Based on the findings of the study, the following recommendations are made:

- Therapeutic malnutrition program should be Strengthen and expanded by ministry of Health
- For prevention of malnutrition community based nutrition program should be established and implemented at all community levels and there should well trained man power.

- Strengthen routine expanded program of vaccination at community level.
- Uses of protected water source for drinking and prevent water pollution with inter sect oral collaborations.
- Care givers need to wash their hand with clean water and soap before preparing food, before feeding baby and after visiting of toilet or disposing of child feces.
- Since colostrums breastfeeding has many advantages such as; rich in vitamin 'A', help to intestinal mature prevent to infection because it contains antibiotic in nature. Professional in the study should disseminate health information on importance of colostrums milk

Authors' contributions

BG, BW and DJ wrote the proposal, participated in data collection, analyzed the data and drafted the paper, approved the proposal with some revisions, commented on the analysis and improved the first draft. All authors revised subsequent drafts of the paper.

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