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AN ASSESSMENT OF ANEMIA AND ITS ASSOCIATION WITH BALANCED AND UNBALANCED NUTRITION INTAKE AMONG EXPECTANT WOMEN

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Abstract:

Objective: *The goal of our research was to discover the relevance of anaemia with nutrition amongst pregnant females.*

Methodology: *This research was carried out at Allied Hospital, Faisalabad (August 2016 to July 2017). In our research, the total number of pregnant women's were 250. All women's which are included were second and third trimester of pregnancy. Two types of data "qualitative and quantitative" was collected. The data which was composed by questionnaire filling was qualitative data, consisting of female demographic information like the detail about women, her nutrition, her family members etc. the data which was composed through anaemia assessment along with included pregnant female's haemoglobin level determination was quantitative data.*

Results: *In our research, the total number of pregnant women's were 250. Anaemia was found in ninety-three present (233) in numbers of pregnant females. Moderate anaemia in which haemoglobin range (Hb) is (7.0 to 9.9) g/dl was found in seventy percent of pregnant females whereas (5.2%) of pregnant females presented haemoglobin level less than 7 g/dl called severe anaemia. Mild anaemia (haemoglobin level 10.0 to 10.9) g/dl was found in 17.6% of women. Out of two hundred and fifty pregnant women, 232 were anaemia patient and also taking an unhealthy diet as well as the statically most important relationship was seen between imbalanced diet and anaemia occurrence.*

Conclusions: *Our research presented expressive relation between the presence of anaemia in pregnant women and imbalance diet which are taken by them during pregnancy in specific areas of our study.*

Keywords: *Hemoglobin, Anemia, Demographic, Balanced, Unbalanced and Pregnancy.*

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INTRODUCTION:

During pregnancy, anaemia is considered as a most significant public health issue all over the world particularly in developing states like Pakistan [1]. Iron Deficiency was reported as the worldwide burden of disease by world health organization in 2002. Anaemia in all over the world presented at the 12th and 9th most significant risk element for entire mortality and iron deficiency respectively [2]. In all over the world, 24.8% of peoples almost 1.62 billion in numbers are anaemia affected with respect to 2008 world health organization report [3]. Anaemia had an approximate worldwide expansion of 42% in pregnant females and also the main reason for the mother's death [4]. Geographically Asian and African peoples are at tremendous risk [5]. Nutritional status of society was presented by IDA expansion [6]. Low haemoglobin level or red blood cells circulation is called anaemia and meanwhile pregnancy it is most usual haematological disorder [7, 8].

WHO categorize anaemia during pregnancy on following aspects. Moderate anaemia = Moderate anaemia in which haemoglobin level is in the limit of (7.0 to 9.9) g/dl, as well as the level of haemoglobin in Severe anaemia, is below 7 g/dl. Mild anaemia = Mild anaemia (haemoglobin level 10.0 to 10.9 g/dl). According to the studies reports conducted in Pakistan as well as in India regarding the expansion of anaemia was as huge as 80% to 90%. In developing states because of deficient intake of folic acid along with iron supplements moreover imbalanced food intake IDA is most demanding [11, 12]. The expansion of anaemia in conceived females reported in several states is as mention: The percentage of UAE & Egypt were 14% and 26% respectively, others states percentage was Bahrain 33% and Jordan 35% [13]. The study carried out by Rizwana F presented 75% of anaemia prevalence which is too high [14]. Uniform result has been presented in a study carried out at Lahore where moderate and severe anaemia was recorded as forty-eight and eight percent of patients respectively [15]. Almost 91% of pregnant females had mild anaemia [9]. A study carried out at Karachi presented a 50% expansion of iron deficiency anaemia in pregnant females [16]. A diet consists of a required quantity of vitamins, fats, minerals carbohydrates, proteins and water significant to keep body healthier is called balanced diet [17]

During pregnancy absence of balanced diet is a major cause of iron deficiency [7]. Food which contains deficiency of iron may cause Anemia, less intake of meat along with huge intake of high digestion food – preventive causes like phytates mostly observe in several developing states [18].

During pregnancy, anaemia is considered as a most significant public health issue all over the world particularly in developing states like Pakistan. Recently carried out studies results presented the most important relationship between the presence of anaemia and poor diet in pregnant females as a preferred area of concern. Nutritional absence (iron or folate) is the main reason for anaemia due to physiological changes related to pregnancy efforts a requirement of further iron stores required for the move to the fetus. While pregnancy increase of red blood cells along with blood volume was almost 33% and 50% respectively. The anaemic baby was delivered by anaemic mother with a deficient stock of iron so finally, whole children generation face destructive intellectual effects along with motor development as well as huge financial losses at present and in future. Anaemic mother while pregnancy is usually acknowledging as a major risk factor for poor delivery as well as hazardous for mother life along with fetus. It also affects communal health, survival and financial development along with intellectual development and productiveness. Therefore, anaemia during pregnancy is the most significant and preventable reason for despondency along with maternal and fetal causality.

METHODOLOGY:

This research was carried out at Allied Hospital, Faisalabad (August 2016 to July 2017). all women's which are included were second and third trimester of pregnancy and also agreed to take part in this research. All those females who are unwilling for participation in research along with those who do not agree for blood donation with the purpose of samples for haemoglobin judgement, as well as entire conceived females in pregnancy initial trimester, were removed from the research.

The total number of peoples living in our concern area of study was almost below thirteen thousand among them one hundred and eighteen (118) were conceived, mother. we assembled 25% additional conceived females due to confounders and ambiguous reporting etc.; therefore 250 pregnant females were registered for the study.

Interviews were held for the purpose of data collection, the data which was composed by questionnaire filling was qualitative data, consisting of female demographic information like detail about women, her nutrition, her family members etc. the data which was composed through anaemia

assessment along with included pregnant female's haemoglobin level assessment by haemoglobin meter was quantitative data.

Anaemia determination was carried out with respect to WHO categorization of anaemia during pregnancy, WHO categorize anaemia during pregnancy on following aspects. Moderate anaemia = Moderate anaemia in which haemoglobin level is in the limit of (7.0 to 9.9) g/dl, as well as the level of haemoglobin in Severe anaemia, is below 7 g/dl. Mild anaemia = Mild anaemia (haemoglobin level 10.0 to 10.9 g/dl) after editing data was feed in SPSS. Anaemia and nutrition association while pregnancy was judge by using Fissure Exact test if the p-value is less than 0.05 than it was declared as the significance level.

RESULTS:

In our research, the total number of pregnant women's were 250. Anaemia was found in ninety-three percent (233) in numbers of pregnant females. Non-anaemic pregnant females were just seventeen (6.8%). Moderate anaemia in which haemoglobin range (Hb) is in between (7.0 to 9.9 g/dl) was found in seventy percent (176 in number) of pregnant females with the standard as well as mean deviation of 0.71gm/100 ml and 8.5 gm/dl respectively. Mild anaemia (haemoglobin level 10.0 to 10.9 g/dl) was found in 17.6% (44 in number) of women with mean as well as standard deviation of 10.27 gm/dl and 0.283gm/100 ml respectively whereas 5.2% (13) of pregnant females presented the level of haemoglobin in Severe anaemia is below 7 g/dl with standard as well as mean deviation of 0.55 gm/dl and 6.15 gm/dl respectively. Out of 250 pregnant women, 232 were anaemia patient and also taking an unhealthy diet. The statically most important relationship was seen between the imbalanced diet and anaemia occurrence (P = 0.000).

Table – I: Anemia Number and Percentage

Anaemia	Number	Percentage
Mild	44	17.6
Moderate	176	70.4
Severe	13	5.2
Non-anemic	17	6.8
Total	250	100

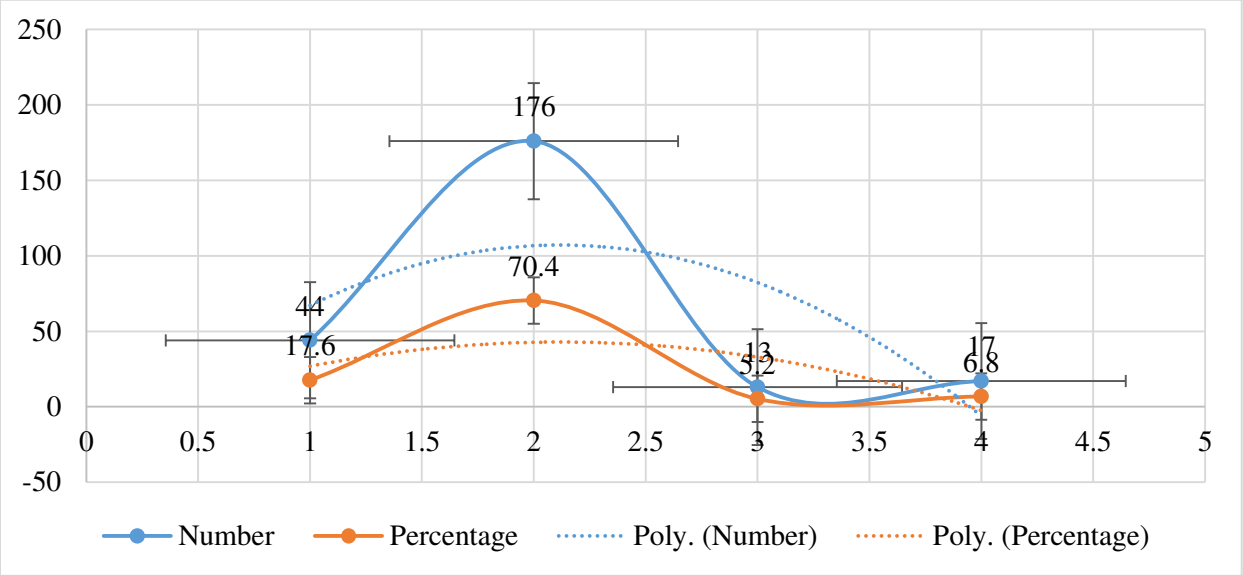


Table – II: Levels of Hemoglobin

Hemoglobin (g/dl)	Mean	SD	Number	Percentage
10.0 - 10.9	10.27	0.28	44	17.6
7.0 - 9.9	8.5	0.72	176	70.4
Under 7	6.15	0.55	13	5.2
Above 11	12.38	0.84	250	100

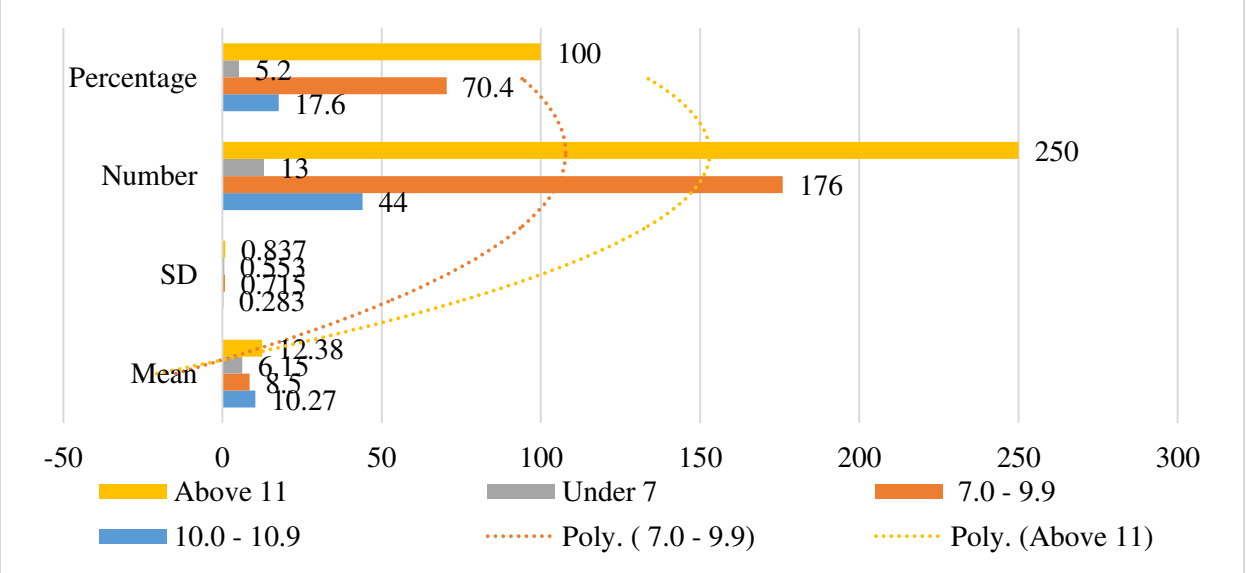


Table – III: Balanced Diet Intake Analysis

Balanced Diet Intake	Non-Anemic	Mild-Anemic	Moderate Anemic	Severe Anemic	Total
Yes	17	1	0	0	18
No	0	43	176	13	232
Total	17	44	176	13	250

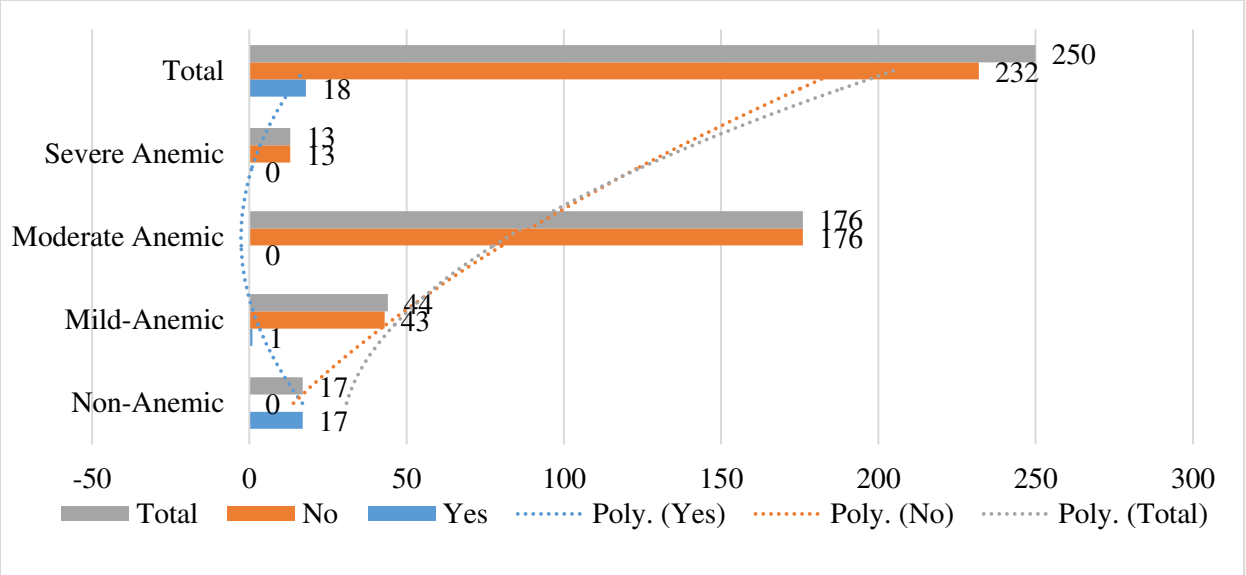
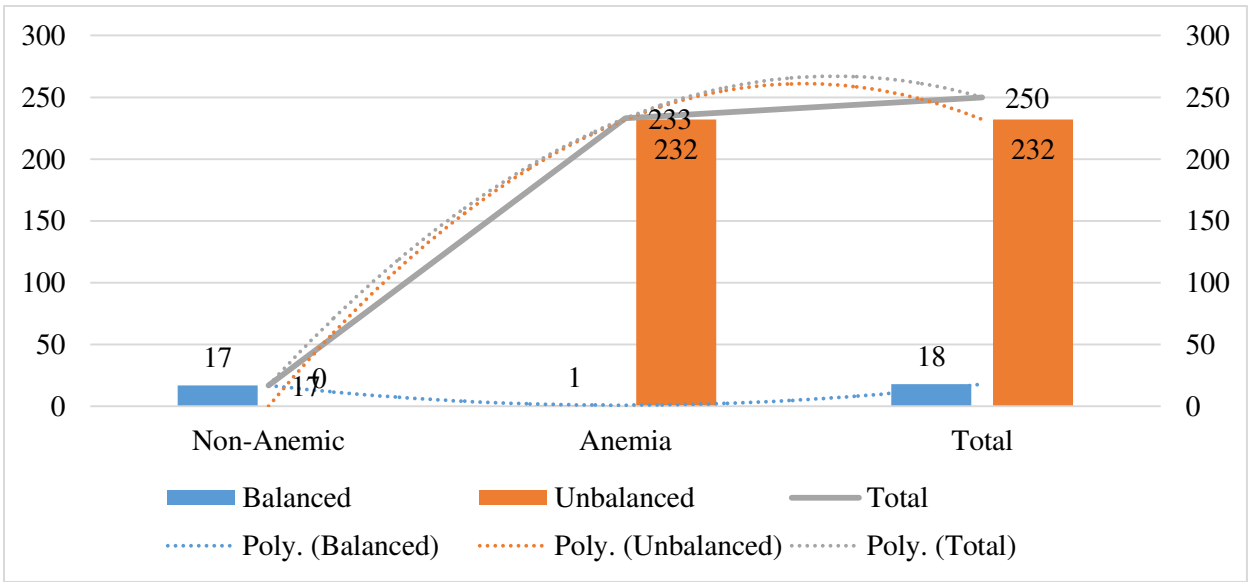


Table – IV: Balanced Versus Unbalanced Diet Intake

Balanced Diet Intake	Non-Anemic	Anaemia	Total
Balanced	17	1	18
Unbalanced	0	232	232
Total	17	233	250



DISCUSSION:

Almost hundred percent of the conceived female enrolled were anaemia patients (Out of 250 pregnant women 232 were anaemia patient) and also taking unhealthy diet, the statically most important association was seen between anaemia occurrence and unbalanced diet. (p= 0.00)

Rohra D cited in a research by Brunvand et.al verify the most important association between imbalanced diet and anaemia occurrence and presented that chapatti was used by Pakistani peoples and it is less imbibing of iron resulting to iron weakness anaemia [9]. According to finalized research by Piammongkol, iron deficiency anaemia in lower areas of the southern Thailand iron was largely typical [19]. In reference to research of Nadeem, anaemia severity was related to high per capita income.

Anaemia severity was in inverse relation with educational status. These outcomes verify that the nutritional absence was the main reason for anaemia [20]. Globally iron deficiency is most general nutritional deficiencies. Ayyub R et al reported that approximately four to five billion females all over the world affected by iron deficiency. Almost 50% of entire anaemia was caused by the absence of iron [21]. In Ethiopia Haidar J conducted research and presented that the expansion of anaemia in conceived females was related (P value is equal to 0.001) with the vegetable intake is lower than one time in a day as well as meat intake is lesser than a single time in a week. Haidar J presented that nutritional iron was sufficient anyhow its bioavailability was bounded due to the iron category was nonheme as well as vitamin C was also deficient there, Moreover, imbibing was additionally decreased in pregnant females in Ethiopia could be analyzed with dietary factors [22]. The 8th main reason of disease in females in developing states was deficit Iron anaemia. Globally the most frequent appearance of malnutrition affecting almost (50) percent of conceived females [18]. A research conducted by Viveki also shown 162 in numbers (71.1%) of the conceived female as housewives among them maximum (83.3%) were relating to the middle class as well as we're taking the unhealthy diet.

CONCLUSIONS:

Our research presented expressive relation between the presence of anaemia in pregnant women and imbalance diet which are taken by them during pregnancy in specific areas of our study**.**

REFERENCES:

1. Anumudu C, Afolami M, Igwe C, Nwagwu M, Keshinro O. Nutritional Anemia and malaria in preschool and school age children annals of African Medicine 2008;7(1):11-17
2. Piammongkol S, Chongsuvivatwong V, Willians G, Pornpatkul M. The prevalence and determinants of Iron defficiency anemia in rural Thai-Muslim Pregnant women in Pattani Province. Southeast Asian J Trop Med Public Health 2006;37(3):553-8.
3. Ahmad N, Kalakoti P, Bano R, Syed M, Aarif M. The prevalence of Anaemia and associated factors in pregnant women in the rural indian community. Australas Med J., 2010;3(5):276-80
4. Ayub R, Tariq N, Iqbal M, Jafery T, Adil MM, Rais `SR. Low hemoglobin levels, its determinants and associated features among pregnant women in Islamabad and surrounding region. JPMA 2009;59-86.
5. Haidar J, Pobocik S. Iron defficiency anemia is not a rare problem among women of reproductive ages in Ethopia: a community based cross sectional study. BMC. 2009; 9:7.
6. Viveki J, Halappanavar A, Vivekip R, Halaki B, Maled and Pershad S. Prevalence of anemia and its epidemiological determinants in pregnant women. AL Ameen J Med Sci.2012;5(3):216-23
7. Scholl TO. Iron status during pregnancy: setting the stage for mother and infant. Am J Clin Nutr. 2005; 81:1218S–22.
8. Gautam CS, Saha L, Sekhri K, Saha PK. Iron deficiency in pregnancy and the rationality of iron supplements prescribed during pregnancy. Medscape J Med. 2008; 10(12):283.
9. Barooti E, Rezazadehkermani M, Sadeghirad B, Motaghipisheh Sh, Tayeri S, Arabi M, et al. Prevalence of iron deficiency anemia among Iranian pregnant women; a systematic review and meta-analysis. J Reprod Infertil. 2010;11(1):17-24.
10. Rohra D, Solangi N, Memon Z, Khan N, AzamI, Ahuja K. Hemoglobin status of pregnant women visiting tertiary care hospital of Pakistan. Pak J M ed Res 2008; 47(2):39- 43.
11. Baig-Ansari N, Badruddin SH, Karmaliani R, Harris H, Jehan I, Pasha O, et al. Anemia prevalence and risk factors in pregnant women in an urban area of Pakistan. Food Nutr Bull. 2008; 29(2):132–9.
12. Toteja GS, Singh P, Dhillon BS, Saxena BN, Ahmed FU, Singh RP, et al. Prevalence of anemia among pregnant women and adolescent girls in 16 districts of India. Food Nutr Bull. 2006;27(4):311–5.

13. Benoist B, McLean E, Egli I and Cogswel M. Worldwide prevalence of anaemia 1993–2005, WHO Global Database on Anemia. Geneva: World Health Organization; 2008. p. 21.
14. Bagchi K. Iron deficiency anaemia--an old enemy. East Mediterr Health J.2004;10(6):754–60.
15. Rizwan F, Qamarunisa, Habibullah, Memon A. Prevalence of anemia in pregnant women and its effects on maternal and fetal morbidity and mortality. Pak J Med Sci 2010;26(1):92-5
16. Awan MM, Akbar MA, Khan MI. A study of anemia in pregnant women of Railway Colony, Multan. Pak J Med. Res 2004; 43:11-4.
17. Wali A, Mushtaq A, Nilofer. The comarative study –efficacy, safety, and compliance of intravenous iron sucrose and intramuscular iron sorbitol in iron deficiency anemia of pregnancy. J Pak Med Assoc 2002; 52:392-5.
18. The American Heritage® New Dictionary of Cultural Literacy, Third Edition www2.sunysuffolk.edu/agiarism WritingGuidelines.pdf
19. Bakhtiar U, Khan Y, Nasar R. Relationship between maternal hemoglobin and perinatal outcome. Rawal Med J 2007; 32: 102-4
20. Indowu O, Mafian C, Sotiloy D. Anemia in pregnancy: A survey of pregnant women in Abeokuta, Nigeria. African Health Sciences 2005 Dec;5(4):295-99.
21. WHO, Worldwide prevalence of anemia 1993–2005: WHO global database on anemia, WHO, Geneva, Switzerland, 2008.5. http://whqlibdoc.who.int/publications/2008/9789241596657_eng.pdf.
22. Balarajan Y, Ramakrishnan U, Özaltin E, Shankar AH, Subramanian SV. Anemia in low-income and middleincome countries. The Lancet 2011 17; 378 (9809): 2123- 35.
23. McLean E, Cogswell M, Egli I, Wojdyla D, De Benoist B. Worldwide prevalence of anemia, WHO vitamin and mineral nutrition information system, 1993-2005. Public Health Nutr. 2009;12(4): 444-54.