

PREVALENCE OF ANEMIA IN PREGNANT WOMEN AT BOOKING VISIT IN BAGHDAD ALJADIDA SECTOR OF PRIMARY HEALTH CARE 2022

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ABSTRACT

Background: Anemia in pregnancy considered a significant public health problem it has an assistant role in disabled life and death of pregnancy women and their future children mainly in developing country, the world bank group (wbG) estimate that the prevalence of anemia among pregnant women in Iraq nearly 38%, while the world health organization (who) estimate it approximately 31%, hence, the primary objective of our study is to investigate the possible prevalence of anemia among pregnancy women in Baghdad _Aljadida sector for primary health care center by analyzed several primary health center in this government. **Method:** A cross sectional descriptive study of 579 pregnant women who attend antenatal care at the primary health care center at Baghdad_ al jadida health sector in Baghdad city. Eight centers are selected, five in the center and three in the periphery. All pregnant women who booked in these center with the exclusion criteria including women with hemoglobinopathy. **Results:** The age of the study sample varied from 15_41 years. The estimated prevalence of anemia was 26.4%, of the studied sample where mild anemia appeared in 66.5%, while that of moderate and severe anemia in 31% and 2,5% respectively maximum numbers of anemic women were in the age group 20-35 were 77.8%. **Conclusion:** The younger age group of mother is a primigravida are protective factor, while be house wife and living in rural area are significantly risk factors to its occurrence. Anemia represents a great challenge to the community health in Iraq region further government efforts to handle it by concentrated health education and promotion of antenatal care.

KEYWORDS: Prevalence, anemia, pregnant women, booking visit.

INTRODUCTION

Anemia is the most common hematologic abnormality diagnosed in pregnancy.^[1] WHO defined anemia in pregnancy as hemoglobin concentration of less than 11 gm. /dl which could be mild (10-10.9 mg /dl), moderate (7.0-9.9 mg/dl) or sever (under 7 gm. /dl).^[2-3] According to WHO reports, anemia affect (35-75%) of pregnant women in developing countries opposed by about 18% in developed ones.^[4-5] During pregnancy, iron deficiency is considered as the main etiology for anemia that occur usually due to deficiency of nutrition and/or iron (fe) store as a result of previously gestation or previously intensive menstrual bloody or poor diet, multiparty, abortion, parasitic infection, excess consumption of coffee or tea directly after meal were confirmed to be correlate with anemia in pregnant women, existence of other micronutrient reduction such as vitamin A. and B12, foliate, riboflavin and copper could play a role in increasing the risk of anemia.^[6] The primary objective of our study is to investigate the possible prevalence of anemia among pregnancy women in Baghdad _Aljadida

sector for primary health care center by analyzed several primary health center in this government.

MATERIALS AND METHODS

This is a descriptive retrospective study of 579 pregnant women who attended antenatal care at the primary health care center at Baghdad Al- Jadada health sector in Baghdad city. Their antenatal case records were received from the antenatal records unit of the primary health center. Eight centers are selected, five in the center and three in the periphery. We included all pregnant women who booked in these centers with the exclusion criteria including women with known hemoglobinopathy. All the relevant information including their sociodemographic characteristic, age, parity, occupation, education, residency, and hemoglobin level were retrieved and analyzed using table and percentages. The WHO defined anemia in pregnancy as a hemoglobin level less than 11 gm./dl. All obtained data were tabled, Figure and analyzed using the spss software (26). Chi square was used to detect significant difference between values of

study population, and the result we considered significance difference at P value of less than 0.05.

RESULT

The study was to evaluate the prevalence of anemia during pregnancy at booking visit in Baghdad al-jadedda

health sector women. 597 pregnant women during three months' period from 1st of January to end of March 2022 were selected. The age of the study sample varied from 15-41 years. According to blood test result out of 597 women, 158 (26.4%) women were anemic and 439 (73.6%) were non anemic (Table 1).

Table 1: Distribution of patients.

Total Number	Anemic women	Non Anemic women
597	158 (26.4)	439 (73.6)

Out of 158 (26.4%) women, 105 (66.5%) were mild anemic, 48 (31.4%) were moderately anemic and 4 (2.5%) were severely anemic. Of the study anemic participants 123(77.8%) of women were in age group 20-35 years, 27(17.1%) were in age group less than 20 years and 8(5.1%) in age group more than 35 years. Of anemic women included in the study 146(92.4%) were

housewife, 12(7.6%) were employer. of the anemic women 72(45.6%) were illiterate or primary education and 86(54.4%) were secondary or high education. Of the anemic women 67(42.4%) were primigravida and 91(57.6%) were multigravida, and 74(46.8%) were living in urban area and 84(53.2%) were living in rural area (Table 2).

Table 2: Distribution of 158 anemic women demographic risk factors.

Variable	Group	Number	Percentage
Severity of anemia	Mild	105	66.5 %
	Moderate	49	31.0 %
	Sever	4	2.5 %
Age	<20	27	17.1 %
	20 -35	123	77.8 %
	>35	8	5.1 %
Occupation	Housewife	146	92.4 %
	employer	12	7.6 %
Education	Illiterate	72	45.6 %
	Secondary	86	54.4 %
Parity	Primigravida	67	42.4 %
	Multigravida	91	57.6 %
Residency	Urban	74	46.8 %
	Rural	84	53.2 %

Table 3: Relationship between severity of anemia and residency.

		Mild	Moderate	Sever	Total
Residency	Urban	39 (52.7)	34 (45.9%)	1(1.4%)	74(100%)
	Rural	66(78.6%)	15(17.8%)	3(3.6%)	84(100%)
	Total	105	49	4	158

Pearson chi -square 0.001

Table 4: Relationship between severity of anemia and age.

		Mild	Moderate	Sever	Total
Age	<20	14(51.9%)	12(44.4%)	1(3.7%)	27(100%)
	20-35	86(69.9%)	34(27.6%)	3(2.4%)	123(100%)
	> 35	5(62.5%)	33(7.5%)	0(0%)	8(100%)
		105	49	4	158

Table 5: Relationship between severity of anemia and occupation.

		Moderate	Sever	Total
Occupation	Housewife	46 (31.5%)	4 (2.73%)	146 (100%)
	Employer	3(25%)	0(0%)	12(100%)
Total		49	4	158

Person chi square 0.070

Table 6: Relationship Between Severity of Anemia And Occupation.

		Mild	Moderate	Sever	Total
Education	Illiterate or primary	42(57.5%)	28(38.3%)	3(4.1%)	73(100%)
	Secondary or high education	63(74.1%)	21(24.7%)	1(1.2%)	85(100%)
		105	49	4	158

Pearson chi square 0.070

Table 7: Relationship between severity of anemia and parity.

		Mild	Moderate	Sever	Total
Parity	Primigravida	37 (55.2%)	29 (43.2%)	1 (1.49%)	67 (100%)
	Multigravida	68 (74.7%)	20 (21.9%)	4 (4.4%)	91 (100%)
		105	49	4	158

Pearson Chi square 0.015

Regarding the relation between severity of anemia and socio demographic characteristics there is significant correlation between the severity of anemia and residence of the participants. As mild anemia is reported more in rural area 66(78.5%), moderate was more in urban area 34(45.9%) and sever were more in rural area 3(3.6%). There is significant relationship between the severity of anemia and parity as mild anemia is more in multigravida 68(47.7%), moderate was more in primigravida 29 (43.2%) and sever were more in multigravida 4 (4.4%). While there is no significant relation between the severity of anemia and their age, nor that with their occupation. No significant relationships were detected between severity of anemia and level of education.

DISCUSSION

Anemia is a common condition that affects many people. It is of particular interest to pregnant women because it has impact on pregnancy outcome. The finding of this study should help clinicians and public health professionals understand the scope of the problem and the factors were need to be addressed. Our findings are close to figure findings in Baghdad, where (36%) (Hussien and Ali, 2018) and globally (31%) (camaschella), 2015).^[7,8] Significant increase of anemic women were seen at the age group (20-29) years, which was comparable to findings of others studies (obai et al., 2016, ayano and amentie, 2018; Bansal et al., 2020). This can explain by a fact that reproductive age women are greatly exposed to anemia due to frequent pregnancies and inadequate birth spacing.^[9-11] Education was found to be related insignificantly for maternal anemia because time's lack, it's possible that they don't have enough time to relax and attend prenatal appointments, they commonly forget to take iron supplements. Most of the participants were mild anemia, which was in agreement with those detected by others reports (bekele et al., 2016; Asrie, 2017).^[12,13] Majority of anemia study in our study were multipara and higher parity as recorded in many study reports locally in Baghdad (abdul_fatah et al., 2018).^[14] And globally in turkey (obai et al., 2016)^[9] and northwest Ethiopia (asrie, 2017).^[13] This higher rate of multiparous women count explains by the fact that these

women became pregnant with reduced level of nutrition because depletion the mother resources during previous pregnancies and lactation period. In contrast (ezugwu et al., 2013) showed that no significant variation between the groups of nulliparous multiparous and grand multiparous.^[15]

CONCLUSION

The prevalence of maternal anemia in our data was 26.4% which considered close to the figure in other study in the area. There was significant relationship between the anemia and residency and parity. Regular ante natal care, iron supplementation and health education should be encouraged as a national program to reduce the number of mothers affected by anemia.

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