

Maternal Hemoglobin Value and Other Risking Factors during Pregnancy in Selected Areas of Pakistan 2016-2017

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ABSTRACT

Indeed in normal gestation, the hemoglobin concentration becomes diluted corresponding to the growing in the quantity of circulating blood. Since iron and folic acid in quantities essential for the fetus are preferentially carried away to the embryo, the mother superior is expected to improve anemia and anemia is one of the most numerous difficulties associated to pregnancy. Anemia in gestation has deleterious consequences on maternal and child health and popularity of anemia during gestation is seriously significant and many changing occurs in the maternal body during pregnancy that disturb the hematocrit and certain other parameters, such as hemoglobin, reticulocytes, plasma ferritin, and unsaturated iron-binding capacity, identifying true anemia, as well as determining the etiology of anemia is challenging. The purpose of this investigation was to estimate the information, perspective and manners of pregnant women concerning anemia, Iron rich diet and iron supplements and also to assess the impact of these circumstances and extra socio demographic variables on the hemoglobin standards of these susceptible groups of mothers. Iron deficiency is the most common true anemia during pregnancy (nearly 75%), which are more regular in females who have negatively receiving prenatal iron and folate supplements. An adult female has about 2 g of iron in her body. When a woman belongs to pregnant, the requirement for iron increases, necessitating an added 1 g to maintain pregnancy properly.

KEYWORDS: Pregnant, Maternal Hemoglobin, Anemic, Infection, Risking factors.

INTRODUCTION

During pregnancy, women pass through physiological changes. Ups and downs in the blood which cause serious, allowing normal fetal maturity and in hale and hearty pregnant mothers, the hemoglobin concentration falloffs with dilution according to the upsurge in the volume of circulating blood. Since iron and folic acid in measures necessary to the fetus are preferentially moved to the fetus, the mother is expected to account for iron deficiency & folic acid deficiency anemia [1].

One of the most common maternal difficulties identified during pregnancy is anemia, 55% of pregnancies resulting in the United States [2]. Anemia is one of the supreme numerous difficulties associated with pregnancy. The term suggests a decline in the oxygen-carrying capacity of the blood as well as, superlative characterized by a discount in hemoglobin concentration [3].

Mostly Iron-deficiency anemia, folate deficiency megaloblastic anemia are common majorly in females and in pregnancy acquired anemia, aplastic anemia and hemolytic anemia are less common, the reason behind Iron-deficiency anemia, folate deficiency megaloblastic is insufficient intakes who are not receiving prenatal iron and folate supplements. In count anemia, for instance thalassemia and sickle cell disease can have a control on the health of the mother and fetus. As was detailed overhead, the maximum causes of anemia are nutritional deficiencies. Habitually these deficiencies are multiple and the medical presentation may be difficult to associate with infections like malaria, *Toxoplasma gondi*, generally poor diet or heritable disorders such as hemoglobinpathies [4, 5].

Anemia may cause due to Pathological which decline in Iron, Folic acid, B12 and Protein. Acute hemorrhagic Following bleeding in the beginning stage of pregnancy or APH Chronic hemorrhagic, as by hookworm infestation, GI (gastrointestinal) bleeding. Some may heredity, Thalassemia's– Haemoglobinopathies, Hereditary hemolytic anemia – RBCs defects. The Infectious origin of anemia are additional current in developed nations [6]. Anemia can be brought by infections such as parvovirus B19, cytomegalovirus (CMV), HIV, hepatitis viruses, Epstein-Barr virus (EBV), malaria, babesiosis, bartonellosis, hookworm infection, and *Clostridium* toxin [7].

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Siraj et al., 2017

It is notable that obstetricians are referred to with Deficiency anemia, Hemorrhagic anemia. It has remained observed there is increased prevalence of anemia in pregnancy in tropic states. This is due to Faulty dietary habit, Faulty absorption process, more iron loss due to sweating and repeated pregnancy at a little interruption; prolonged duration of lactation, Chronic malaria and tuberculosis [8]. A reasonable percentage of maternal deaths owing to antepartum and post-partum hemorrhage, pregnancy-induced hypertension and sepsis result in women with moderate anemia and last one is severe anemia. Distinct investigates of severe anemia have been reported and that linked with circulatory disappointment. Cardiac decomposition habitually happens when Hb falls below 5.0 g/dl [9].

A blood destruction of even 200 ml in the third step produces illness and mortality in these women [10]. Available statistics from Pakistan indicate that maternal morbidity measures remain more advanced in women [11]. When maternal hemoglobin levels were below 8.0 g/dl leads to a fall in birth weight due to increase in prematurity rate and intrauterine growth retardation has been described [12].

Over 178 million Pakistan's population currently noted and more than half of its population consist of female and among them 40 million stand in their reproductive stage [15 - 49]. Its progress in the direction of accomplishing to condense maternal mortality, three-quarters by 2015 is inadequate. 1 in 89 women pass away of maternal reasons with a mortality ratio of 320 per 100,000 live births are termed by Pakistan Demographic and Health Survey in 2007. Complications of pregnancy and child birth are the leading causes of death, accounting for 20 percent of all deaths for women of child bearing among the age of 15-49 years [13-14].

Particularly in the rural areas of Pakistan maternal mortality is high because of poor access to health services. According to one survey, risking factor related with maternal mortality in 16 rural districts of Baluchistan and KP of Pakistan [15]. Almost two-thirds of pregnant women are anemia affected in developing states and contributes to low birth weight, maternal morbidity and mortality [16]. Anemia is affecting 1.62 billion people globally and probable high in females than in men [17, 18].

Some investigations make clear that fetal loss or low birth weight, and pathological abnormalities of the fetus can additionally be incorporated with anemia [19, 20]. Two-thirds of non-pregnant females of sexual age have confirmation of iron deficiency [21] and at least 5% have anemia [22]. *P. falciparum* malaria during pregnancy is an extremely-understood source of maternal and fetal morbidity and destruction. Although *P. vivax*infection has experienced less notice than *P. falciparum* infection, it is precisely a crucial subscriber to both maternal anaemia and low birth weights [23, 24].

P. falciparum is among malaria-causing parasites is responsible for most morbidity and mortality, primarily during infancy and pregnancy in sub-Saharan Africa. Maternal anemia and low birth weight baby is the result of Infected erythrocytes accumulating in placental intervillous spaces [25]. Up to 35% of preventable low birth weight distributions due to malaria during pregnancy [26].

Pregnant females are exceptionally unsafe to malaria; they have an advanced prospect of disease and a stronger prospect of severe sickness, contrasted with their non-pregnant counterpart [27, 28]. Toxoplasmosis infection during pregnancy can lead to congenital disease and revealed as mental backwardness and visual impairment in the infant [29].

Rubella is occasionally a moderate inflammation, but infection during thefirst3-4months of pregnancy can appear in inevitable miscarriage, stillbirth, and congenital rubella problem [30, 31].

In AL-Liqa'a Hospital are determined from October 2010 till September 2011. 18 (7.2%) out of 250 women was detected as Trichomoniasis. STIs were estimated in 58 (23.2%) women, and trichomoniasis represented about 31.0% of them. *Trichomonas vaginalis* was found at two age intervals [25-34] years old 27.8% which shows the uppermost rate of infection [32].

METHOD AND MATERIAL

Study Design and Inclusion criteria

Studies of Maternal Hemoglobin and infection during pregnancy, in selected areas (Charsadda, Takh Bhai Mardan, Pohan Colony of Mardan, Manga, City of Mardan, Shewa Village (kali), Shahbaz Gahri, and Rustum. Descriptive study were started from June of 2016 to May 2017.

In this study pregnant female's data were collected from different health centers, which are located in selected areas of our study, through a proper protocol and follow ethics of each center.

We collect the data from nineteen Health Care Centers, Rural Health Center, Urban Health Center, Basic Health Unit, Private Clinics, which are approved by the government and Hospitals of District Mardan. All women who came to the centers during pregnancy were tested for Hb level and infections and those women who have not report or test about pregnancy and infection was carefully investigated by face to face interviews with experienced pediatricians using standardized questionnaires.

Information collected at interview:

That Women which have their report or lab test about their pregnancy and other risks were first asked about age, edu-cational level, foreign travel, high risk occupations, financial status, nutritional value (iron rich or not), previous pregnancy, body mass index (BMI) and rural or urban.

And those which have not their report about pregnancy and other risking factors were asked; name, rural or urban, age, income, Employment, How is your pregnancy and what about medical Provide.

Medical Concern, Pregnancy in past two year and Number of child. Miscarriages, still birth, Baby health problem during birth, baby weight, Born Early, Past gestational Debilities.

Health problem not related with pregnancy, Surgeries, injuries or burn, Parental Vitamin, Dietary Supplement, Iron supplement, Appetites, Raw milk or fresh squeezed juice, soft cheese, undercooked beep, Sea food, runny eggs, Slice lunch Meat, Ice, Dirt, Clay, Paint chips, Starch, Smoke, Smoke inside home, Alcohol, Drugs, Depressed, Medication, Hurting you or your child, marriage <16 and <17 year at conception.

Some mother have Limited skill for proper nutritional and also less knowledge about Foster care, in addition our group also want to ask about Migrancy, Homeless, Breasting feeding and reason behind the breast feeding.

RESULTS

The given result are divided into two sub category, first category on the base of lab report, which are collected from each pregnant women which freshly check their health status.

Second category on the base of questionnaires, which are very accurately fill, asking one by one question from each present pregnant female, questionnaires are fill from the outside of the hospitals and other health related centers and especially choose those women which haven't check their Health status during pregnancy.

Three hundred ninety eight (398) questionnaires are filled from different area and One thousand five hundred and ninety six (1596) suspects of pregnant female are enrolled to study the Hemoglobin value and infection during pregnancy. Total suspect is 1596 (100%) in which 1271 (79.6%) show anemic, Moderate anemic 27 (1.7%), Mild Anemic 80 (5%) while 324 (20.3%) shown non anemic, 234 (14.7%) show infected, 1362 (85.3%) shown non infected **Table 1.1**.

Table 1.1		
Prevalence of Anemia an	d Infection during Preg	nancy
Factors	Total	Percentage
Anemic	1271	79.6
Moderate Anemic	27	1.7
Mild Anemic	80	5
Non Anemic	324	20.3
Infected	234	14.7
Non Infected	1362	85.3
Anemic and Infected	195	12.2
Moderate Anemic and Infected	6	0.4
Mild Anemic and Infected	49	3.1
Non Anemic and Infected	39	2.4
Anemic and Non Infected	1076	67.4
Moderate Anemic and Non Infected	6	0.4
Mild Anemic and Non Infected	355	22.2
Total	1596	100

Majorly Nutrition effects mother health during pregnancy and especially Iron play important role, in our study 591 (37%) mother shows Fe rich level while 1003 (62.8%) shown Fe less level.

Previous pregnancy similarly effect the status of mother health and their current pregnancy, to shown the ratio of the mother which had 1st time to give birth and also those women who are pregnant for the second or third time, in our study near about 561(35.2) females had first time, while 1027 (64.3%) had given birth before. All data are tabulated in **Table 1.2**.

Table 1.2								
	Nutritiona	l Value					Previous Pregnancy	
	Fe Ri	ch	Less I	Fe Rich	Y	es	N	o or 1 st time
Total	Q	%	Q	%	Q	%	Q	%
1596	591	37.0	1003	62.8	1027	64.3	561	35.2
Total N	umber of Inf	ection		G.I.T			11	0.7
Total		%	/o	Ascaris			1	0.1
234		14	.7	Hypertensiv	ve		1	0.1
Factors	Q			Giardiasis			1	0.1
Malaria	31		1.9	Fever	Fever 15			
Typhoid	14		0.9	R.T.I			13	0.8
Stomach Infection	4		0.3	PVO			17	1.1
Nephrolithiasis	1		0.1	Rubella			1	0.1
UTI	52		3.3	Brucella			2	0.1
Pneumonia	1		0.1	Fever			15	0.9
Cholethiasis	2		0.1	R.T.I			13	0.8
G.E	5		0.3	Renal Colic	2		1	0.1
Toxoplasma	6		0.4	T/B			1	0.1
Leishmaniasis	1		0.1	Bleeding p/	v		1	0.1
Kidney Infection	2		0.1	Spolting p/v 1			0.1	
Heart Infection	1		0.1	Scabies 1			0.1	
Chest Infection	5		0.3	BUI			1	0.1
Tape worm	23		1.4	Vaginitis			1	0.1

(Q: Stand for Quantity in all tables)

Many women choose to start their family later in life. Most have perfectly healthy pregnancies and babies but being an older mum can affect their pregnancy and the birth in our study, we reported 21(77.8%) shown anemic whose age is 41 to 50 year old and on second category 257(84.3%) female shown anemic at the age of 31 to 40 and the rest of data relation with age are shown in **Table 1.3**.

	Tabl	e 1.3																										
											R	elatio	n with	Mate	rnal :	age												
L OLAL		infected	Mild anemia & non	Non infected	Moderate anemia &		Anomia & Non infootad	Infected	Non anemic and	Mild anemia & Infected		infected	Moderate anemia and	Anemic and infected		INOU THECKEN	Non Infontol	Interter	Infortad	Non Anemic				Moderate Anemia		Alleniic	•	Factors
%	Q	%	Q	%	Q	%	Q	%	Q	%	Q	%	Q	%	Q	%	Q	%	Q	%	Q	%	Q	%	Q	%	Q	
14.3	228	3.6	57	0.8	13	11.0	175	0.1	2	0.3	4	0.0	0	1.0	16	13.2	210	1.1	18	2.3	37	3.8	61	0.8	13	12.0	191	18-20
64.8	1034	12.2	194	2.3	36	41.1	656	1.9	30	2.2	35	0.3	4	9.1	145	53.8	859	11	175	14.6	233	14.3	229	2.5	40	77.5	801	21-30
19.1	305	6.0	96	0.8	12	14.3	229	0.3	4	0.6	10	0.1	1	0.3	S	17.1	273	2	32	2.9	47	6.6	106	0.8	13	84.3	257	31-40
1.7	27	0.5	~	0.0	0	1.0	16	0.1	2	0.0	0	0.1	-	0.1	1	1.3	20	0.6	9	0.4	6	0.5	~	0.1	1	77.8	21	41-50

Relation with Urban and Rural are display in **Table 1.4**. In this study urban mothers shown 235 (14.7%) anemic and approximately rural mothers 1035 (64.8%) shown anemic. While 27 (1.7) urban shown infected and rural females 207 (13%) shown infected and the ratio of rural mother also high in case of non-anemic and infected.

Table 1.4				
	Relation with Rural	and Urban		
Eastour	Urba	n		Rural
ractors	Q	%	Q	%
Anemic	235	14.7	1035	64.8
Moderate Anemic	15	0.9	52	3.3
Mild Anemic	75	4.7	328	20.6
Non Anemic	45	2.8	278	17.4
Infected	27	1.7	207	13
Non Infected	253	15.9	1107	69.4
Anemic & Infected	24	1.5	171	10.7
Moderate Anemic & Infected	1	0.1	5	0.3
Mild Anemic & Infected	1	0.1	41	2.6
Non Anemic & Infected	211	13.2	864	54.1
Anemic & Non Infected	3	0.2	36	2.3
Moderate Anemic & Non Infected	14	0.9	47	2.9
Mild Anemic & Non Infected	67	4.2	287	18
Total	280	17.5	1314	82.3

Present studies have shown that being overweight is correspondingly effects the status of mother during pregnancy, 61 to 70 kg mother, highly showed anemic and infected ratio. Relation with Body Mass Index (BMI) are shown in **Table 1.5**.

Table 1.5										
		Body	y Mass Ind	lex (BMI)						
Ea store	40	to 50	51	51 to 55		to 60	61 t	o 70	Unknown	
Factors	Q	%	Q	%	Q	%	Q	%	Q	%
Anemic	94	5.9	155	9.7	275	17.2	557	34.9	121	7.6
Moderate Anemic	4	0.3	8	0.5	13	0.8	29	1.8	5	0.3
Mild Anemic	30	1.9	54	3.4	90	5.6	165	10.3	36	2.3
Non Anemic	30	1.9	32	2.0	52	3.3	168	10.5	38	2.4
Infected	24	1.5	26	1.6	35	2.2	124	7.8	24	1.5
Non Infected	100	6.3	161	10.1	292	18.3	601	37.7	135	8.5
Anemic & Infected	17	1.1	19	1.2	31	1.9	109	6.8	18	1.1
Moderate Anemic & Infected	1	0.1	0	0.0	2	0.1	2	0.1	1	0.1
Mild Anemic & Infected	7	0.4	5	0.3	7	0.4	27	1.7	2	0.1
Non Anemic & Infected	23	1.4	25	1.6	48	3.0	153	7.6	32	2.0
Anemic & Non Infected	23	1.4	25	1.6	244	15.3	448	28.1	103	6.5
Moderate Anemic &Non Infected	3	0.2	8	0.5	11	0.7	27	1.7	4	0.3
Mild Anemic & Non Infected	7	0.4	5	0.3	7	0.4	27	1.7	2	0.1
Total	124	7.8	187	11.7	327	20.5	725	45.4	159	10.0

The status of Pregnancy relation with financial status are presented in **Table 1.6**, in this case we collected more data, whose financial range from 11- 20 thousand in total of 270 (16.9%) shown anemic and 61 (3.8%) shown infected ratio.

Table 1.6]											
				Financial	Status							
Factors	>10 Th	ousand	11-20 Thousand		21-30 Thousand		31-40 Thousand		41-50 TI	iousand	51-60> Thousand	
	Q	%	Q	%	Q	%	Q	%	Q	%	Q	%
Anemic	120	7.5	270	16.9	253	15.9	200	12.5	165	10.3	73	4.6
Moderate Anemic	9	0.6	13	0.8	21	1.3	5	0.3	3	0.2	1	0.1
Mild Anemic	41	2.6	83	5.2	84	5.3	71	4.4	53	3.3	13	0.8
Non Anemic	34	2.1	62	3.9	48	3.0	68	4.3	39	2.42	32	2.0
Infected	17	1.1	61	3.8	46	2.9	31	1.9	27	1.7	14	0.9
Non Infected	137	8.6	271	17.0	255	16.0	237	14.8	177	11.1	91	5.7
Anemic & Infected	15	0.9	53	3.3	37	2.3	23	1.4	23	1.4	14	0.9
Moderate Anemic & Infected	3	0.2	1	0.1	2	0.1	0	0.0	0	0.0	0	0.0
Mild Anemic & Infected	3	0.2	1	0.1	8	0.5	6	0.4	7	0.4	0	0.0
Non Anemic & Infected	2	0.1	8	0.5	9	0.6	8	0.5	4	0.3	0	0.0
Anemic & Non Infected	15	0.9	53	3.3	37	2.3	23	1.4	23	1.4	14	0.9
Moderate Anemic &Non Infected	6	0.4	12	0.8	19	1.2	5	0.3	3	0.2	1	0.1
Mild Anemic & Non Infected	38	2.4	63	3.9	76	4.8	65	4.1	46	2.9	13	0.8
Total	184	11.5	332	20.8	301	18.9	268	16.8	204	12.8	209	13.1

Educational background, which show how and many female know about nutrition, health and baby care during pregnancy, because the ratio of anemic and infected female are majorly high in illiterate women and on other side the anemic and infected ratio in educated female are nearly negligible. All data are categorized **Table 1.7**.

Table 1.7												
		E	ducational	l Back gro	ound							
Factors	Illit	terate	Ma	Matric		Inter - mediate		Bachelor		luated	Post Graduated	
	Q	%	Q	%	Q	%	Q	%	Q	%	Q	%
Anemic	52	3.3	347	21.7	199	12.5	94	5.9	162	10.2	0	0.0
Moderate Anemic	6	0.4	17	1.1	11	0.7	4	0.3	3	0.2	0	0.0
Mild Anemic	25	1.6	97	6.1	68	4.3	34	2.1	50	3.1	0	0.0
Non Anemic	4	0.3	91	5.7	62	3.9	27	1.7	41	2.6	1	0.1
Infected	8	0.5	61	3.82	60	3.76	8	0.5	18	1.1	0	0.0
Non Infected	48	3.0	377	23.6	201	12.6	113	7.1	185	11.6	1	0.1
Anemic & Infected	7	0.4	56	3.5	45	2.8	5	0.3	17	1.1	0	0.0
Moderate Anemic & Infected	1	0.1	3	0.2	0	0.0	0	0.0	1	0.1	0	0.0
Mild Anemic & Infected	4	0.3	12	0.8	9	0.6	1	0.1	3	0.2	0	0.0
Non Anemic & Infected	1	0.1	5	0.3	15	0.9	3	0.2	1	0.1	0	0.0
Anemic & Non Infected	45	2.8	291	18.2	154	9.6	89	5.6	145	9.1	0	0.0
Moderate Anemic &Non Infected	5	0.3	14	0.9	11	0.7	4	0.3	2	0.1	0	0.0
Mild Anemic & Non Infected	21	1.3	85	5.3	59	3.7	33	2.1	47	2.9	0	0.0

Only 398 pregnant females fill the questionnaire. The questionnaire had details of socio demographic data and questions to assess knowledge about how your pregnancy going and baby health problem, all data is are shown in **Table 1.8** and in **Table 1.9**, showing food which are taking during pregnancy and drug taking during pregnancy and information about Maternal and child care.

Table 1.8												
Socio demogra partici	aphic data pants	a of	I	Knowledge of th	e partici	pants rega	arding anemia, f	oods and relate	ed with pregna	ncy.		
Total	Q	%	How is You going	r Pregnancy	Respo	onse (%)	No of Child	Q (%)	Dietary S	upplement		
	398	100	Vomiting a Constipatio	nd on	2	(0.5)	Zero	Zero 97 (24.4)		No (%)		
Ag	e		Nausea and	l Vomiting	177	(44.5)	1-3	100 (25.1)	154 (38.7)	68 (17.1)		
16 to 17	7	1.8	Vomiting a burn	nd Heart	8	(2.0)	4-5	24 (6.0)	Iron Supplement Y (%) – N (%)			
18 to 20	28	7.0	Constipatio	n	24	(6.0)	5-6	5-6 16 (4.0)		59 (14.8)		
21 to 30	317	79.6	Vomiting		16	(4.0)		Medical	Concern			
31 to 40	43	10.8	Heart Burr	1	23	(5.8)	Resp	onse	Yes (%)			
Educa	ation		No Respons	se	70	(17.6)	Gestationa	l Diabetes				
Illiterate	90	22.6	Medical Provider				High	B.P	32	(8.0)		
Matric	165	41.5	Yes (%)	No (%)		_	Ane	mia	189	(47.5)		
Intermediate	62	15.6	376 (94.5)	19 (4.8)	Pro	3aby]	High B.P &	& Anemia	3 (0.8)		
Bachelor	23	5.8	Pregnanc	y in Past two year	olem	Health	No res	ponse	72 (18.1)			
Graduation	41	10.3	Yes (%)	No (%)		P	Health Pro related with	blem not Pregnancy	Problem with Teeth or Gums			
Post Graduated	0	0.0	212 (53.3)	184 (46.2)	Y (%)	71 (17.8)	Y (%)	N (%)	Yes (%)	No (%)		
Financia (Thous	l Status sand)		Misc	arriage	N (%)	324 (81.4)	53 (13.3)	341 (85.7)	117 (29.4)	281 (70.6)		
< 5-10	96	(24.1)	Yes (%)	No (%)	Dow	. Forder	Employme	ent Status	Other Inf	fection (%)		
11-20	76	(19.1)	71 (17.8)	327 (82.2)	DOL	i Lariy	Yes (%)	No (%)	Yes (%)	No (%)		
21-30	92	(23.1)	Stil	l Birth	Ye	s (%)	49 (12.3)	346 (86.9)	0 (0.0)	100 (%)		
31-50	111	(46.3)	Yes (%)	No (%)	19	(4.8)						
51 >	23	(14.7)	27 (6.8)	371 (93.2)	No) (%)						
					375 (94.2)							

	Tabl	e 1.9															
							Kno	owledge r	egarding	food							
	Food A	llergies				R	aw milk o	or Fresh S	Squeezed	Juice					Dirt		
Yes	%	No	%		Yes		%		No)		%	Yes	%	No		%
30	7.5	316	79.4		236		59.3		162	2	4	0.7	32	8.0	366	9	92.0
	Soft	food			Unde	er cooke	ed beefs			Sea	food		Clay				
Yes	%	No	%	Yes	%		No	%	Yes	%	No	%	Yes	%	No		%
22	5.5	376	94.5	39	9.8		359	90.2	36	9.0	362	91.0	11	2.8	387	9	97.2
	Runny	y eggs			Slice	d Lunc	h Meat			Ic	ce		Paint Chips				
Yes	%	No	%	Yes	%		No	%	Yes	%	No	%	Yes	%	No		%
130	32.7	268	67.3	25	6.3		373	93.7	51	12.8	347	87.2	20	5.0	378 95.0		95.0
Starch								Kno	wledge a	bout dru	gs and o	ther addi	ction				
Yes	%	No	%		Smoke Smo						Home				Alcohol		
13	3.3	385	96.7	Yes	%	No	%	Yes	%	No	D	%	Yes	%	No		%
Lim	ited skill	of Nutri	ition	14	3.5	384	96.5	81	20.4	31	7	79.6	0	0.0	398	1	0.00
Yes	%	No	%					Medicat	ion	Drugs							
218	54.8	180	45.2		Yes		%		No		%		Yes	%	No		%
	Depr	essed			38		9.5	5	360		90.5		6	1.5	392	9	98.5
Yes	%	No	%														
165	41.5	233	58.5					Kr	owledge a	about chi	ld care a	nd Mate	rnal				
N	larriage :	at 16 Ye	ar]	Hurting	g your Ch	nild			Foste	er Care			Mig	rancy	
Yes	%	No	%	Yes	%	Ó	N	No	%	Yes	%	No	%	Yes	%	No	%
16	4.0	382	96.0	22	5.	5	3	76	94.5	25	6.3	373	93.7	27	6.8	371	93.2
N	larriage :	at 17 Yes	ar			Ho	omeless						Breast F	eeding			
Yes	%	No	%	Yes	%		No	(/0	Yes		%	N	0		%	
													26		6.5		

DISCUSSION

This research considered that, the anemic female during gestation is 79.6% and 20.3% shown non anemic result, while 14.7% are infected and 85.3% are non-infected. A pregnancy is looked upon to be at chance when a difficulty is more reasonable than normal to appear as different risk agents. Proper screening methods should be put to work for all pregnant women attending clinics to take up the causes that enable the pregnant mothers for a sensitive pregnancy [33].

Pregnancy is similarly an essential contingency point for malaria epidemic, due to decreased immune condition, and negative pregnancy outcomes include maternal anemia, stillbirth, preterm delivery and low birth weight. Each year, almost 125 million women living in malaria-endemic nations throughout the world become pregnant [34].

In Asia, *P. falciparum* and *P. vivax* infections are frequently equally frequent, even though *P. vivax* infection is generally believed to be harmless, and its related morbidity is often ignored [35] [36].

While in our field of knowledge, 31 (1.9%) pregnant female shown malaria which acknowledges the infection of malaria in pregnant women is less. The age show important character in this research and may indicate to risk factor, the highest age group of pregnant mothers were normal reproductive age (from 21-30 years old) which was performing (64.8%) of cases that means majority of the individuals became pregnant during sustained and normal age for conceiving.

In Erbil City/Iraq and in USA the related study carried that reveled most of pregnant wives were from age group (17-34) years old in a rate (77.15%) (79%) appropriately [37, 38]. Another support of the result was study presented in Philippines (39) which brought out that age has appreciable influence on the frequency of urinary tract infection low space birth while study in Sulaimaniya [40].

According to study showed in Melbourne /Australia determined that there is relationship between socioeconomic status, health and existence of uncertainty circumstances. Many studies demonstrated that agents like education, age at marriage, socioeconomic status, poor knowledge, loss of births spacing and history of anemia before pregnancy were significant influences of anemia [41, 42, 43].

The ongoing study acknowledged that there was significant association between level of socioeconomic status and presence of numerous risk factors during pregnancy and most of them 79 women in a rate 75% of low SES class had more than one risk factors and 63 women with medium SES in a rate 60 % from medium SES had more than risk factors, this result attributed to with decrease SES associated with decline level of education , economic level and awareness of pregnant women to their health during pregnancy so more liability to having multiple risk factors and increase risk of maternal mortality and morbidity [44].

Conclusion

The current study showed the lack of knowledge regarding anemia, iron rich foods and the importance of iron supplementation during pregnancy. As awareness motivates behavioral changes, consciousness should be created through suitable nutritional counselling during antenatal visits and through media. Effective measures to provide medical facilities to all rural mothers by the government to be considered. De-worming should be intensively practiced in all pregnant women. Targeted estimation of hemoglobin levels in adolescent girls and women in reproductive age group, intensive counselling and motivation of pregnant women to consume Iron and folic acid and ensuring adequate supply to them would help in reducing the incidence of anemia in pregnant women.

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