

## Frequency of Anaemia in Pregnant Women between 18-30 years of age - A cross sectional study

UMAR AHSAN<sup>1</sup>, UMER FAROOQ TAHIR<sup>2</sup>, TAUQIR ASLAM WARAICH<sup>3</sup>, NAILA NAWAZ<sup>4</sup>

### ABSTRACT

**Aim:** To study the frequency of anemia in pregnant ladies of age b/w 18-30 years

**Methods:** A sum of 50 patients was incorporated into the review. Study was conducted among patients coming to OPD of Department of Gynaecology & Obstetric, Allama Iqbal Memorial Teaching Hospital, Sialkot from 1<sup>st</sup> November 2016 to 31<sup>st</sup> December 2016. All female patients having age between 18-30 years were encircled in this research. Non-probability convenient sampling method was used. Data was collected in face to face interview in the presence of interviewee by closed ended questions. The Method was Cross Sectional Observational study. Permission from Head of departments and Patients were taken before conducting the study.

**Results:** Results show that 70% of females were categorized as anaemic. Among them anaemia was more prevalent in uneducated women of age groups 20-30 years; living in rural population; having monthly income less than 10,000 Rs. Parity plays an important role, multiparous women were more anaemic, in addition excessive bleeding during menstrual period or post-operatively, low socioeconomic status, poor sanitary conditions at home resulting in hook worm infestation and less or no intake of iron supplements were found in more anaemic.

**Conclusion:** After comparison and discussion of results it is concluded that anaemia is more prevalent in females of age group 18-30 years (78%), and females who are malnourished, multigravida, having poor sanitary conditions at homes, taking no supplements and belong to low socio-economic status.

**Keywords:** Anemia, pregnancy, postpartum hemorrhage, iron supplements.

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### INTRODUCTION

Anemia in pregnancy represents one fifth of maternal passing's worldwide and is a central point in charge of low birth weight babies<sup>1</sup>. World Wellbeing Association characterizes iron deficiency in pregnancy as hemoglobin Convergence of under 11 g/dl and hematocrit of under 0.33. As indicated by the United Countries (UN) gauge, roughly 50% of pregnant ladies experience the ill effects of iron deficiency around the world. Sickliness commonness amid pregnancy contrasted from 18% in created nations to 75% in South Asia<sup>2</sup>. Pallor is a main consideration in ladies' wellbeing in creating nations. Serious pallor amid pregnancy is an essential supporter of maternal mortality<sup>3</sup>. The reasons for sickliness are multifactorial, including eating regimen, contamination and hereditary qualities, and for a portion of the commonest reasons for weakness there is great proof of the adequacy of basic mediation: for instance, press supplementation<sup>4</sup>. Obsessive sickliness of pregnancy is chiefly because of iron deficiency<sup>5</sup>.

Maternal anemia is basic and is a run of the mill issue in child bearing age in making regions like Pakistan. It is surveyed that 1.25 million people are press inadequate globally<sup>6</sup>. Mother sickliness in child bearing age is customarily considered as peril variable for decrease pregnancy result and can undermine the life of women and child. Regardless, how much the maternal hemoglobin obsession impacts the fetal outcome is so far questionable. A couple audits have exhibited a positive connection between decrease blood concentration before transport and a disagreeable outcome<sup>7</sup>, while diverse surveys have not positive for a basic association<sup>8</sup>. The prosperity perceptive world gathering has come to comprehend that shortcoming, most of which is a result of iron insufficiency, has honest to goodness prosperity and helpful consequences<sup>9</sup>.

It is evaluated that 2,150 million people are press deficient<sup>10</sup>. Pallor is the frequent helpful issue in child bearing age and has a changed transcendence, causes and level of reality in varying masses, being more common in under developing nations. The ordinariness is 36% for normal women and 52% for child bearing women generally, and tends to be 4-6 times higher in under developing than in developing countries<sup>11</sup>.

In 1993, the World Bank situated sickliness as the eighth driving purpose behind contamination in

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young women and women in the making scene. Data assembled from wherever all through the world show that a whole of 2170 million people (men, women and adolescents) are wiped out by WHO criteria. The most impacted social occasions, in generally diving solicitation are pregnant women, the elderly, school kids and adult men. In making countries, power rates in pregnant women are frequently assessed to be in the extent of 40%-60%. Among non-pregnant women this is 20%-40% and in school developed children and adult men the gage is around 20%<sup>12</sup>.

The hemoglobin fixation, hematocrit and red cell include fall the middle of pregnancy in light of the way that the headway of the plasma volume is more imperative than that of the red cell mass. Regardless, there is a move overall coursing hemoglobin obviously identified with the improvement in red cell mass. This along these lines depends not by any means on the iron status of the individual<sup>13</sup>.

Plasma volume rises reliably all through pregnancy with a liking to level over the most recent two months. Ladies with different pregnancies have correlative increase extension of blood plasma mass and then again ladies with incapably making hatchlings have a likewise decrease plasma mass. blood volume increases unequivocally between the total of 1st 3 month and labour. Likewise as with blood mass the level of the expansion is identified with the navigate of the fetus<sup>15</sup>. Thusly ladies with varying pregnancies are besides at augmented hazard of deficiency. Yet a couple surveys have found that shortcoming is more ordinary among young people, this radiates an impression of being a result of the way that adolescents are more consistently primigravida. Two audits from Malawi assert this finding. In an audit finished in Ruler Elizabeth Central Specialist's office and Namitambo Prosperity center Malawi, school examination exhibited an extended threat of iron insufficiency for ladies under 20 years old, however when changed for gestation and trimester at booking the extended danger with energetic age no longer existed<sup>16</sup>.

A study in the Shire valley expand demonstrated that immature primigravida had the scarcest mean hemoglobin fixation and the most crucial inevitability of delicacy 495(93.8%). Adolescent multigravida, grown-up primigravida and grown-up multigravida had typicality of 144(87.7%), 322(90.7%) and 2614(88%) respectively<sup>17</sup>.

Amidst pregnancy, whiteness is as frequently as conceivable recognized to work out as intended in light of sustaining needs, particularly press inadequacy. The definition and ID of iron inadequacy is hazardous particularly in conditions in which ceaseless compounding is available. The best quality level for perceiving iron need delicacy is so far the

examination of fittingly recolored bone marrow suction for farthest point press as hemosiderin. This technique is meddling, and from now on not sensible for masses screening<sup>18</sup>.

The objective was to study the frequency of anaemia in pregnant ladies of age b/w 18-30 years

## PATIENTS AND METHODS

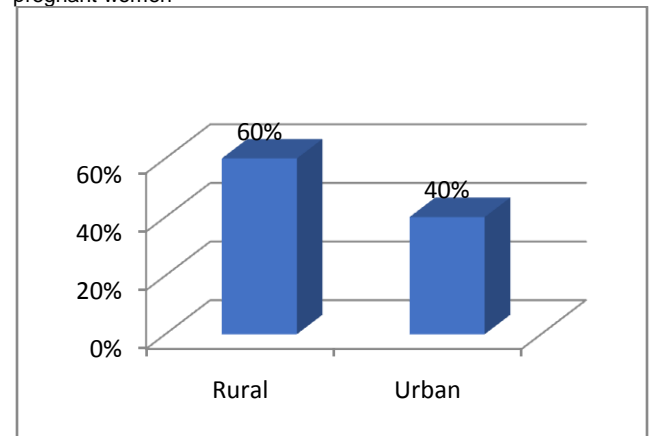
This study was conducted from 1<sup>st</sup> May 2016 to 31<sup>st</sup> December 2016 in Department of Gynaecology & Obstetric, Allamalqbal Memorial Teaching Hospital, Sialkot. Allamalqbal Memorial Teaching Hospital is 400 bedded tertiary care referral hospital affiliated with Khawaja Muhammad Safdar Medical College, Sialkot. Method was cross sectional observational study. Hospital ethical committee was informed and an approval was taken. All female patients visiting OPD of Gynae & Obstetric Department of Allamalqbal Memorial Teaching Hospital, Sialkot having age between 18-30 years were included in this study. Data was collected and Statistical analysis of the collected data was done by using SPSS version-21.

## RESULTS

Results show that 70% of females were categorized as anaemic. Among them anaemia was more prevalent in uneducated women of age groups 20-30 years; living in rural population; having monthly income less than 10,000Rs.

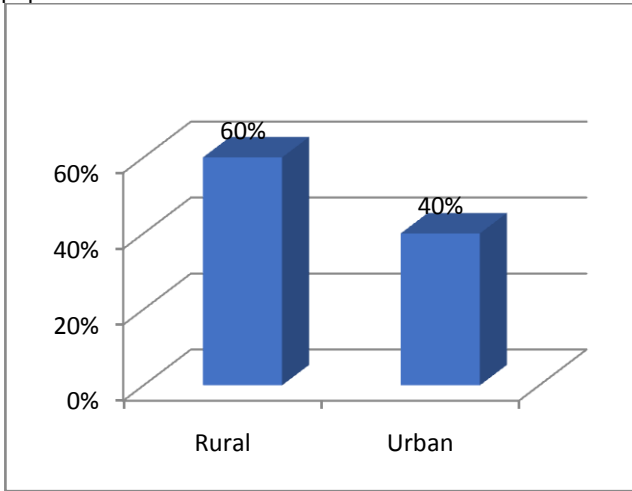
Parity plays an important role, multipara women were more anaemic, in addition excessive bleeding during menstrual period or post-operatively, low socioeconomic status, poor sanitary conditions at home resulting in hook worm infestation and less or no intake of iron supplements were found in more anaemic.

Fig.1: Comparison of the number of anaemic and non-anaemic pregnant women



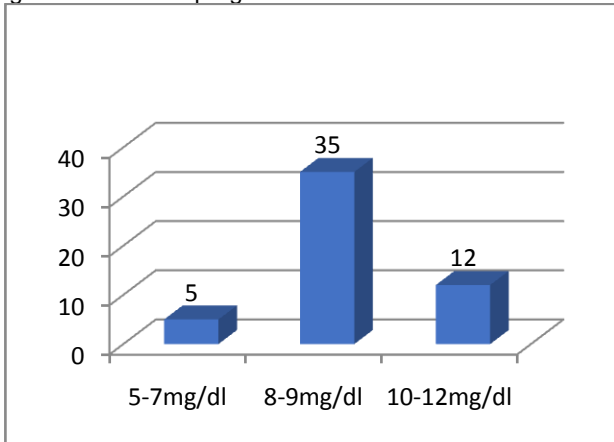
**Inference:** In a sample of 50 were found anaemic pregnant women 70%

Fig.2: Percentage distribution of living in rural and urban population



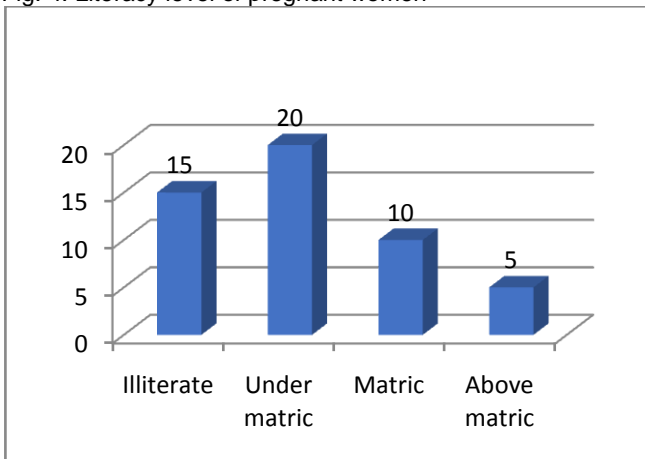
**Inference:** It shows that anaemia is more prevalent in women living in rural areas 60% (30women) as compared to urban areas

Fig. 3: Hb levels of pregnant women



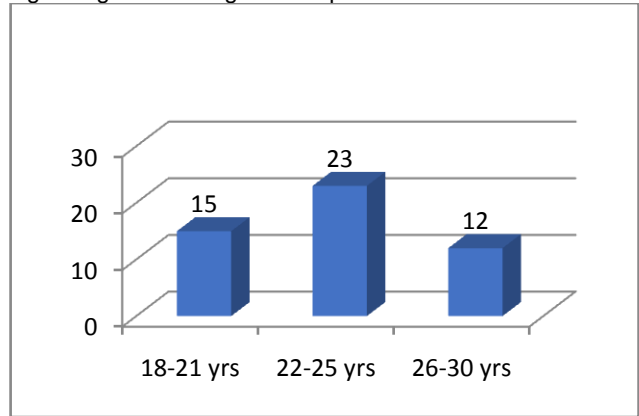
**Inference:** It shows 70% (35) women had their Hb levels between 8 to 9gm/dl. When sample size is 50.

Fig. 4: Literacy level of pregnant women



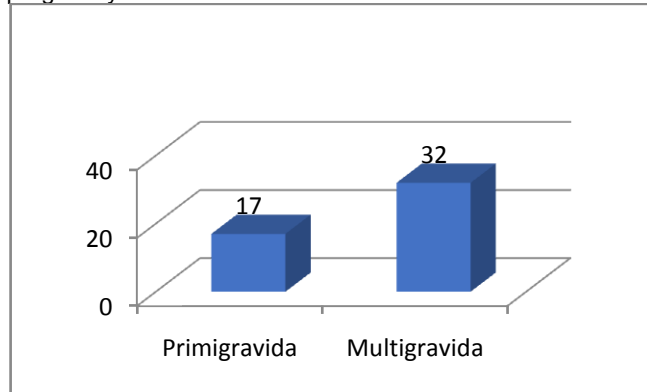
**Inference:** This shows that anaemia is prevalent among those women who had education less than matriculation (40%) according to above chart when sample size

Fig. 5: Age at marriage of sample



**Inference:** Women who were married b/w 22-25 years of age were more anaemic 46% according to above data when sample size is 50

Fig.6: Percentage Distribution of sample according to pregnancy status



**Inference:** Anaemia was more common in multigravida (64%) as compared to primigravida.

## DISCUSSION

Iron deficiency anemia is the most well-known reason for death of ladies in pregnancy around the world. In addition, iron deficiency is considered as a noteworthy reason for some fetal deformations. This may bring about numerous peculiarities in moms also. In our review led in year 2014, diverse range, populace and day and age make this examination unique in relation to different reviews directed on same theme. This review was another randomized, cross-sectional, poll based and multicentric contemplate for iron deficiency in pregnant ladies.

Anemia in pregnancy represents one fifth of maternal passings worldwide and is a central point in charge of low birth weight babies<sup>1</sup>. World Wellbeing Association characterizes iron deficiency in

pregnancy as hemoglobin Convergence of under 11 g/dl and hematocrit of under 0.33. As indicated by the Unified Countries (UN) gauge, roughly 50% of pregnant ladies experience the ill effects of iron deficiency around the world. Sickliness commonness amid pregnancy contrasted from 18% in created nations to 75% in South Asia. Pallor is a main consideration in ladies' wellbeing in creating nations. Serious pallor amid pregnancy is an essential supporter of maternal mortality. The reasons for sickliness are multifactorial, including eating regimen, contamination and hereditary qualities, and for a portion of the commonest reasons for weakness there is great proof of the adequacy of basic mediation: for instance, press supplementation<sup>5</sup>. Obsessive sickliness of pregnancy is chiefly because of iron deficiency

This review was in reliable with the review directed on a similar subject in India. That review demonstrated a high commonness of reasonably extreme iron deficiency (<10 g/dl hemoglobin) among young ladies of conceptive age going to wellbeing offices. The qualities were most elevated among ladies with suspected pelvic fiery infection who had disabled ripeness, likely as consequence of this sickness<sup>19</sup>.

An audit in Indonesia revealed a 26.5% normality of pallor (<11.0g/dl hemoglobin) among non-pregnant working ladies, 22.1% among eager young ladies, and 53.3% (<12.0g/dl hemoglobin) among pregnant ladies<sup>20</sup>. In our study 83.5% of non-pregnant ladies and 78.6% of pregnant ladies fell underneath got a handle on respect (<11.5.0g/dl hemoglobin). It demonstrates that ladies who don't have youths had higher hemoglobin values than ladies having kids. It bolsters the view that work, lactation and tyke bearing cost a lady's supervising condition. In any case, the level of the impacts of child-bearing on hematological status in this masses was obliged. The fall a long way from the certainty examination showed a capacity of - 0.1 g/dl from the mean benchmark hemoglobin respect for each live birth, which is a little respect. The enlightenment for this is likely the low mean number of young people bound to plainly wedded ladies in Maharashtra State: 2.85, with a mean of 2.59 adolescents 'in the not exceptionally expelled past living<sup>21</sup>. In our review masses, ladies had a mean of three pregnancies over a standard regenerative Cross of 10 years<sup>22</sup>. The short regenerative explore in like strategy for tubal sanitization at an early age (mean, 28 years) and unequivocally measures, for example, pound supplementation amidst pregnancy are obviously going to have coordinated a touch of the impacts of tyke bearing on sickliness and may address the nonattendance of silly weakness (<9g/dl

haemoglobin).The possible results of this layout propose that in India , mediations that highlight on diminishing capability or on iron supplementation amidst pregnancy will have helpful nutritious impacts yet will at present leave most ladies iron lacking. In Mumbai the ladies dissected were, as is commonly said, from poor foundations and likely had lacking weight control creates. Regardless, the issue of under sustenance in light of current circumstances began liberally before in life, with sexual presentation disconnection accomplishing under nourishment of young ladies, which was exacerbated by menstrual iron occasions after menarche

Another review directed on conceptive wellbeing in EUROPE additionally expresses that the pre-birth handle information of 43801 ladies conveying between 1993-2008(91% of all conveyances) in the biggest college obstetric office in Germany were broke down and the relationship of Hb<8g/dl with maternal attributes, pregnancy dangers conveyance mode and assessed conveyance blood misfortune were ascertained, multi variable strategic relapse models were connected to process chances proportions. Furthermore, the effect of these hazard elements for conveyance blood misfortune was evaluated with multi variable direct relapse examination<sup>23</sup>.

Another review in regions of Multan demonstrates that on the premise of country and urban circulation 60% had a place with provincial and 40% to urban populace. Frailty was more pervasive in rustic ranges presumably as a result of absence of wellbeing training, lacking sustenance and dishonorable medicine. Comparative perceptions were made in an investigation of iron deficiency in pregnant ladies of Railroad Settlement, Multan. They watched that microcytic, hypochromic sickliness coming about because of iron insufficiency was the most successive of weakness (76%) trailed by folate inadequacy was 20% and joined iron and folate lack (20%). Biochemical and hematological parameters connect amid pregnancy. The hemoglobin hematocrit and red cell tally diminished amid pregnancy. One variable might be the development of plasma volume. They were of the supposition that low level of hemoglobin may be because of lacking nourishment utilization, malabsorption, worm invasions or unreasonable menstrual bleedings<sup>24</sup>.

Another review was found in consistence with our information directed at Gilgit Pakistan. In an overview directed to gauge the predominance of iron deficiency in females matured 14-65years. The hemoglobin was evaluated in every patient and out of 447 patients 376 females were pregnant and 71 were non-pregnant demonstrating diverse regenerative protests.

Considering 11gm/dl as typical breaking point of hemoglobin level for the review populace 43.1 % patients were observed to be weak<sup>24</sup>. On the premise of blood picture, out of these 100 pregnant ladies, 80 were weak and 20 no sickly When the pregnancy status was examined, it was found that out of 80 iron deficient females 12.5% were primigravida, 87.5% were multigravida and greater part had 4-5 youngsters as of now. Along these lines, equality is an imperative consider pallor there was an expanded pervasiveness in age amass 36-50 years (62.5%) when contrasted with 18-35 years' age (37.5%). Additionally as appeared in above table, as indicated by seriousness around 10% cases were extremely iron deficient with blood hemoglobin levels under 5gm%, 75% were respectably pallid with hemoglobin between 6-9gm%, 15% were somewhat pale with hemoglobin levels under 10gm%.The side effects much of the time appeared by the patients incorporate simple exhaustion capacity, paleness, migraine and weakness(85%) each and blacking out and windedness (10%).Infrequently watched side effects incorporate swooning, palpitation, sickness and stomach torment (10%) each. Few cases displayed indications as pica, longing for dirt (5%) while very nearly 15% of cases were asymptomatic.

## CONCLUSION

After comparison and discussion of results it is concluded that anaemia is more prevalent in females of age group 18-30 years (78%), and females who are malnourished, multigravida, having poor sanitary conditions at homes, taking no supplements and belong to low socio-economic status.

**Recommendations:**We should conduct anaemia control seminars and introduce anaemia preventing programs and policies. We should do our level best to decrease the prevalence of anaemia and do health education of people.

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