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Research Article

**TO ASSESS THE PREVALENCE OF IRON DEFICIENCY  
ANEMIA IN MENOPAUSAL WOMEN.**<sup>1</sup>Dr Amna Tariq, <sup>2</sup>Dr Roop Jawaid, <sup>3</sup>Dr Sanallah<sup>1</sup>MBBS, Rahbar Medical and Dental College, Lahore.<sup>2</sup>MBBS, Sahiwal Medical College, Sahiwal.<sup>3</sup>MO, RHC, Behal, Bhakkar.**Article Received:** November 2020**Accepted:** December 2020**Published:** January 2021**Abstract:**

*A major public health concern around the globe is anemia which also includes developing countries. An overall prevalence of severe anemia around the globe among non-pregnant women of reproductive age has approximately 1.1% typically affecting 19 million non-pregnant women. According to a report presented in 2013 demonstrate that among non-pregnant Chinese women the prevalence of severe anemia was 0.3%. In America there is 5% prevalence of iron deficiency anemia. It is the most common nutritional deficiency appears in both developed and under developed country.*

*The study has concluded that pre-menopausal were seen more anemic as compared to post-menopausal. The main reason could be menstrual irregularities which end up with iron deficiency anemia. Female in their late 40's must keep on checking their hb level to prevent severe deficiencies.*

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**INTRODUCTION:**

Countries that are having low, middle or high income are most prone to get affected by such public health concerns known as anemia. The world health organization has stated that the major contributing factors of anemia are iron and other micronutrient deficiencies which include acute and chronic infection, inherited or acquired disorders. A major public health concern around the globe is anemia which also includes developing countries. An overall prevalence of severe anemia around the globe among non-pregnant women of reproductive age has approximately 1.1% typically affecting 19 million non-pregnant women. According to a report presented in 2013 demonstrate that among non-pregnant Chinese women the prevalence of severe anemia was 0.3%. In America there is 5% prevalence of iron deficiency anemia. It is the most common nutritional deficiency appears in both developed and under developed country. A survey conducted in 2014 states that the hb concentration of female was 11.3g/dl in Pakistan. World health organization has stated that due to iron deficiency more than 2 billion people are suffering from anemia around the world. Anemia is a condition in which level of hemoglobin, hematocrit and erythrocytes falls below the normal range. WHO has defined normal ranged and anemic ranges when the hb concentration comes below 12g/dl in women and 13g/dl in men is called anemic.

There is an increased need of an iron rich diet more than 30% of patient admitted to hospitals in developed countries this is how The prevalence of anemia increase during growth and developed and these countries are reported to anemic and this rate is known to be higher in developing countries and among women. When iron is not sufficiently absorbed, when dietary intake of iron declines when bodily requirements increase, or in cases of excessive blood loss these are contributing factors in Iron-deficiency anemia. Through the provision of dietary education at diagnosis the iron-deficiency anemia can be easily cured with low-cost measures stated by economical analyst. There is negative impact of severe anemia which affects woman's physical, mental, and social health and becomes a significant public health issue when the iron deficiency is not prevented and/or controlled. The aim of the study was to evaluate the prevalence of iron deficiency anemia among menopausal women.

**METHODOLOGY:**

It was across sectional study in which post-menopausal participants were enrolled on the basis of inclusion criteria. The aged ranged between 45-65 years. The study was approved by research institute

review board. The aim of the study was explained to women those who were post-menopausal over age 45 and had no other gestational disorder were included in the study. An informed consent was signed from all the participants. Women come under independent variable whereas anemia was taken as dependent variable. A general socio-demographic questionnaire was obtained from all the participants.

The data was analyzed by SPSS version 21. For the comparison of categorical data chi-square and was used. However that data was expressed as mean and percentage and the statistical significant was considered less than 0.05.

**RESULT:**

220 women were included in the study the mean hemoglobin level of the pre and post-menopausal women in 45-65 years of age were  $9.21 \pm 1.12$  g/dl and  $10.4 \pm 7.43$  g/dl respectively which was lower than the normal level ( $>12$ g/dl). The overall prevalence of anemia among 45-55 year pre and postmenopausal women was about 83.5 percent having the Hemoglobin level below the much cut off level of 12 recommended by the WHO. Out of 220 women only 14% were not anemic and placed in normal category. The prevalence of severe anemia was very low whereas moderate 44% and mild 35% in women. 13% women were not falling under any grade of anemia and were marked normal. The total percentage was higher in pre-menopausal women as compared to post-menopausal women.

**Discussion**

A widespread major health concern which also appears in developing countries in Asia, Africa, South America, and even in Western Europe is anemia. With the passage of time a decline has seen in the cases of anemia by 4.0% globally. A study has also reported a decline from 33.0% to 29.0% among non-pregnant women and a decline from 43.0% to 30.8% among pregnant women. These rates of decline are promising but not sufficient. There must be detection of the issue first and identification of risk factors in different countries and regions to fight against anemia. The rate of anemia has been decreasing compared to previous years due to great improvements in different countries based on their social, economic and cultural differences. There are many causing factors which increase the prevalence of anemia and can vary even in developed countries between 11-30% across patient groups with different socio-demographic characteristics such as by eating disorders, infectious diseases, impairments in iron intake or absorption, or factors associated with the gastrointestinal system. The Health Statistics 2013

Report by the Ministry of Health indicates that 9.8% of women reported that they have experienced iron-deficiency anemia. Menstrual irregularities and a high number of frequent births are the major contributing factors of the reasons for a higher prevalence of iron-deficiency anemia.

There was 40% prevalence of iron-deficiency anemia in current study. Steven *et al.*'s systematic review on the effects of diet on severe anemia among pregnant and non-pregnant women reports a prevalence of anemia of 29.0%. Iron-deficiency anemia was reported to be the cause of 12.8% of maternal mortality, especially in Asia. Literature has reported that women having higher BMI at obesity levels has shown significant higher prevalence of anemia among them. However the current study has also stated that women who presented with high MI at obesity level were anemic. Contradict to this statement remaining women who had no anemia were also obese. The phenomenon elaborates that severe malnutrition and increased weight gain following menopause. A study conducted by Kara *et al.* shows that there is negative association was found between BMI and serum iron levels among obese women of reproductive age. Anemia has positive relation with socioeconomic factors it contributes negative impact. Martinez *et al.* completed a study on the effects of socioeconomic factors influencing anemia development aiming to lower the prevalence in Afghanistan. Our study did not determine a statistically significant difference in the prevalence of anemia based on income level. Martinez *et al.*, albeit has demonstrated in a study which state that women who consume red meat very rarely supports the findings of prevalence of anemia.

In our study, more than one out of four (28.5%) women who use cervical contraceptive tools was anemic. Anemic women use contraceptive methods that reduce bleeding in regard to safe maternity decisions and prevention has been stated by global. Maternal mortality anemia is associated with number, frequency and method of deliveries among the women of reproductive age. In our study, approximately one out of three women who had 3-4 or more children was anemic, 29.5% and 28%, respectively. There was a significant difference seen among the analysis between anemic and non-anemic women, delivery method and menopause status. Women who had undergone C-section are more prone to get iron deficiency anemia. Over past many years, the ration of C-section has been rapidly increasing. 50.0% of births constitute Cesarean section deliveries stated by according to Public Health data. The increasing rate of anemia among

cesarean has a great concern. Our study also showed that elective Cesarean section deliveries, not associated with any medical indication, are highly associated with the development of anemia, in addition to the various medical and economic complications they are also associated with.

The study has concluded that pre-menopausal were seen more anemic as compared to post-menopausal. The main reason could be menstrual irregularities which end up with iron deficiency anemia. Female in their late 40's must keep on checking their hb level to prevent severe deficiencies.

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