CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY

Nutrition supplementation is a preparation intended to supplement the diet and provide nutrients, such as vitamins, minerals, fiber, fatty acids, or amino acids, that may be missing or may not be consumed in sufficient quantities in a person's diet. There are much more benefits that nutritional supplements can provide. The main point is that these supplements help one to have the optimum health deserved and minimize the risk of diseases. Iron deficiency anemia is the common type of anemia, and is known as sideropenic anemia. It is the most common cause of microcytic anemia. Iron deficiency anemia occurs when the dietary intake or absorption of iron is insufficient, and hemoglobin, which contains iron, cannot be formed. There are several mechanisms that control human iron metabolism and safeguard against iron deficiency. The main regulatory mechanism is situated in the gastrointestinal tract. When loss of iron is not sufficiently compensated by adequate intake of iron from the diet, a state of iron deficiency develops over time. When this state is uncorrected, it leads to iron deficiency anemia. Storage levels of iron have the greatest influence on iron absorption. Iron absorption increases when body stores are low. When iron stores are high, absorption decreases to help
protect against toxic effects of iron overload. Iron absorption is also influenced by the type of dietary iron consumed. Researches have found that nutritional supplements can help one to have the optimum health deserved and minimize the risk of diseases. Tiwari AK, et.al. (2011) found iron supplementation on iron deficient women, Haemoglobin (Hb) levels along with antioxidant enzymes, namely catalase, superoxide dismutase (SOD), glutathione reductase (GSH-Rd), reduced glutathione (GSH) and total antioxidant capacity (TAC) were found significantly increased (P < 0.01) in anemic women after treatment. It is suggested that blind iron supplementation should be avoided and shall be provided on need basis. Thus, the existing theoretical foundations, necessitated for further research to which extent the specific nutritional supplementation is required for anemic college women. Hence, in this research, the investigator was interested to find out how far the specific nutritional supplementation, desupplementation and resupplementation influence the anemic status of college women.

The purpose of the study was to study the effect of specific nutritional supplementation, desupplementation, and resupplementation on anemic profile status among college women. To achieve the purpose of the study, the investigator conducted a sample survey to assess the symptoms of the anemic condition. Based on the survey, the investigator selected 15 anemic women
students as subjects. To confirm the anemic status selected college women were tested for their hemoglobin levels and the college women who were having less than 12 gm/dl hemoglobin were considered as the anemic for this study, as the normal adult women required is 12 – 16 gm/dl hemoglobin. Random group design was followed in this study. The selected anemic college women (N=15) were provided with specific nutritional supplementation for Eight weeks. After the completion of 8 weeks nutritional supplementation, they were stopped the nutritional supplementation for 8 weeks and this phase was considered as desupplementation phase. After the completion of desupplementation period of 8 weeks the subjects were started providing with nutritional supplementation and this phase of 8 weeks was considered as resupplementation phase. Prior to the experimental treatments, all the subjects were measured of their anemic profile status and determined their (1) Iron (2) Total Iron Binding Capacity (3) Ferritin (4) Folic Acid (5) B12 (6) Hemoglobin and (7) Red Blood Cell, the data obtained were considered as initial scores of the anemic profile status. Data were obtained at the end of nutritional supplementation phase (completion of 8 weeks of nutritional supplementation), end of desupplementation (completion of 16 weeks), and end of resupplementation phase (completion of 24 weeks). The obtained data was subjected to statistical analysis using Repeated measures ANOVA.
The results of the study proved that there was significant improvement due to specific nutritional supplementation and resupplementation on anemic status of the college women on Iron, Ferritin, Folic Acid, vitamin B12, Hemoglobin and Red Blood Cell and the improvement was found to be significant at 0.05 level.

5.2 CONCLUSIONS

Within the limitations and delimitations of the study, the following conclusions were drawn.

1. It was concluded that the nutritional supplementation and resupplementation phases have significantly improved the iron status of the anemic college women.

2. It was concluded that the nutritional desupplementation and resupplementation phases have significantly reduced the total iron binding capacity of the college anemic women.

3. It was concluded that the nutritional supplementation and resupplementation phases have significantly improved ferritin of the anemic college women.
4. It was concluded that the nutritional supplementation and resupplementation phases have significantly improved folic acid of the anemic college women.

5. It was concluded that the nutritional supplementation and resupplementation phases have significantly improved vitamin B12 of the anemic college women.

6. It was concluded that there was significant differences between after nutritional score and after desupplementation score; and after desupplementation score and after resupplementation score have significantly improved hemoglobin of the anemic college women.

7. It was concluded that after nutritional supplementation and after resupplementation have significantly improved red blood cells of the anemic college women.

5.3 RECOMMENDATIONS

The findings of this study proved that the anemic status of college women could be significantly improved due to specific nutritional supplementation and resupplementation, hence it was recommended that college women of anemia can take suitable nutritional supplementation to treat anemia.
5.4 SUGGESTIONS FOR FURTHER RESEARCH

1. The findings of this study proved that there was significant improvement in Iron, Ferritin, Folic Acid, vitamin B12, Hemoglobin and Red Blood Cell due to nutritional supplementation, and resupplementation among anemic college women. A research may be undertaken to find out the effect of nutritional supplementation on these variables among normal college women.

2. A research to find out the effect of nutritional supplementation on college women on different physical fitness variables may undertaken.

3. A similar study may be undertaken with larger samples to support the findings of this study.