International Journal of Advanced Science and Research
ISSN: 2455-4227; Impact Factor: RJIF 5.12
Received: 18-02-2019; Accepted: 20-03-2019
www.allsciencejournal.com
Volume 4; Issue 3; May 2019; Page No. 42-43

The impact of Nurses' led Intervention on the psychosocial factors affecting nutritional status to change the behaviour in prevention of anaemia among adolescent girls

Chintamani Chauhan[1], Usha Ukande[2]
[1] Ph.D. Scholar, Choithram College of Nursing, Indore, Madhya Pradesh, India
[2] Guide & Principal, Choithram College of Nursing, Indore, Madhya Pradesh, India

Abstract
An evaluative one group pretest and post test approach was used to conduct a study to assess impact of Nurses' led Intervention on the psychosocial factors affecting nutritional status to change the behaviour in prevention of anaemia among adolescent girls, Sample size of 200 adolescent girls studying in government schools of Indore city were selected using non probability purposive sampling technique. Dependent variable was nutritional anaemia, psychosocial factors and independent variables were nurses' led interventions. the significance value for change in all measurements are less than 0.05(P=0.000), we can conclude that the average difference of 21.61 per girl of dietary scores and 10.33 in rating scores are not due to chance variation, and can be attributed to after 15 days program. i.e. statistically significant difference between before and after program in both nutritional status and level of knowledge among adolescent girls of 12-18 years of age.

Keywords: nurses' led Intervention, psychosocial factors, nutritional status, prevention of anaemia and adolescent girls

Introduction: Background
Anemia is defined by World Health Organization (WHO) as low blood hemoglobin concentration, <12 gm/dl, and has been regarded as public health problem in both developed and developing countries. In-spite of successful implementation of National Nutritional Anemia Control Programme (NNACP) and Iron Folic acid supplementation (IFA) – National Nutritional Anemia Prophylaxis programme, the burden of anemia in surprisingly large enough in Indian children, particularly in adolescent girls. As per the National Rural Health Mission (NRHM), Adolescent Division, Ministry of Health and Family Welfare (MoHFW), Government of India 2013 database, anemia in India is a severe grade public health problem with a high prevalence of about 74% with hemoglobin <11 gm/dl. It is widely prevalent in all age groups, nearly 58% in pregnant women, 50% among non-pregnant non-lactating women, 56% among adolescent girls, 30% in adolescent boys and around 80% in children under two years of age. The burden of anemia is a major contributor for low birth weight, lowered resistance to infection, poor cognitive and motor development, weakness, fatigue, difficulty in concentrating and lower productivity.

Statement of the Problem
The impact of Nurses' led Intervention on the psychosocial factors affecting nutritional status to change the behaviour in prevention of anaemia among adolescent girls.

Objectives
1. To assess the psychosocial factors affecting the nutritional status with regard to the dietary habits of adolescent girls.
2. To evaluate the post intervention level of nutritional status among adolescents.

Hypothesis
Hypothesis: There is significant difference in behavior towards nutritional status after administration of Nurses' Led Interventions among adolescents at the level of $p<0.05$.

Assumption
There will be some psychosocial factors affecting nutritional status causing nutritional anaemia among adolescent girls.

Methodology
An evaluative one group pretest and post test approach was used in this study. Sample size of 200 adolescent girls studying in government schools of Indore city were selected using non probability purposive sampling technique. Dependent variable was nutritional anaemia, psychosocial factors and independent variables were nurses' led interventions.
The main study was done in October 2016. Formal permission was taken from the principals of government school. The Blood sample was drawn and Hb level was assessed through laboratory test method to find out the prevalence of anaemia. Descriptive open-ended questions were asked using a structured interview schedule by maintaining privacy and confidentiality of the adolescent girls.
Based on the objectives and the assumption made by the researcher, the data was analyzed by using descriptive & inferential statistics.

Research Findings
The findings were, the prevalence of nutritional anaemia was 56 % and the psychosocial factors revealed were, most of the adolescent girls prefer eating fast food. Majority of adolescent girls say that their family members or mother takes care of their eating habits sometimes not always. Most

of the girls don't know about balanced diet. It was also revealed that they mostly have concern about their gaining weight or figure. Some of the factors included were their busy schedule, stress of study and coaching. There is less or no time for taking proper diet. Mass media as well as friends also influenced their life style and eating habits. Parental expectations also give rise to increase in stress and thus affect the eating habits. Thus in current scenario due to fashion and peer pressure the adolescences are figure conscious and prefer dieting and avoid balance diet which leads to inadequate food intake and makes individual unhealthy leading to nutritional anaemia.

Another objective was to evaluate the post intervention level of nutritional status and level of knowledge among adolescents.

Hypothesis: There is significant difference in behavior towards nutritional status after administration of Nurses' Led Interventions among adolescents at the level of $p<0.05$.

Table 1: Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Dietpre	59.86	200	12.497	.884
	Dietpost	81.47	200	9.423	.666
Pair 2	Ratingpre	52.94	200	7.426	.525
	Ratingpost	63.27	200	9.170	.648

The descriptive table displays the mean, sample size, standard deviation, and standard error for both level of nutritional status and level of knowledge among adolescents' girls after administration of Nurses' Led Interventions program. Across all 200 subjects, adolescent girls scores in both nutritional status and level of knowledge improve 21.61 and 10.33 points on average after 15 days program. The subjects clearly gain on average scores over the course of the study. But the standard deviation in rating scores was more variable after training programme rather than dietary scores.

Table 2: Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Diet pre & Diet post	200	.519	.000
Pair 2	Rating pre & Rating post	200	.586	.000

At .519 the correlation between the baseline and 15 days of Nurses' Led Interventions program in among adolescents' girls is statistically significant and change was consistent after training across subjects. Similarly, at .586 shows the positive correlation between the baseline and 15 days programme in the girls is also statistically significant.

Table 3: Paired Samples Test

		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pre Diet - Post Diet	-21.611	11.080	.783	-23.156	-20.066	-27.583	199	.000
Pair 2	Pre Rating – Post Rating	-10.330	7.707	.545	-11.405	-9.255	-18.955	199	.000

The mean column in the paired sample t- test displays the average difference between before and after programme (21.611) in dietary scores and (10.330) in rating scores of psychosocial factors affecting nutritional status among adolescent girls of 12- 18 years of age. The standard deviation column displays the standard deviation of the average difference score. The std. error mean column provides an index of the variability one can expect in repeated random samples of 200 girls similar to the ones in the study. The 95% confidence interval of the difference provide an estimate of the boundaries between which the true mean difference lies in 95 % of all possible random samples of 200 girls similar to the ones participating in the study.

Conclusion

Since the significance value for change in all measurements are less than 0.05(P=0.000), we can conclude that the average difference of 21.61 per girl of dietary scores and 10.33 in rating scores are not due to chance variation, and can be attributed to after 15 days program. i.e. statistically significant difference between before and after program in both nutritional status and level of knowledge among adolescent girls of 12- 18 years of age.

Reference

1. Agarwal KN, Gomber S, Bisht H, Som M. Studies on Adolecent Girls- An analytical Review. National Institute of Public Cooperation and Child Development. A study on Anaemia Prophylaxis in Adolescent School Girls by Weekly or Daily Iron Folate Supplementation. Journal of Indian Pediatrics. 2008; 40(4):296-301.
2. Arun Panat V. Iron deficiency anemia among rural college girls.A result of poor nutrition and prolonged menstruation. Journal of community Nutrition and Health. 2013; (2):1-5.
3. Bulliyy G, Mallick G, Sethy GS, Kar SK. Haemoglobin status of non school going adolescent girls in three districts of Orissa, India. Int J Adolesc Med Health. 2007; 19:395-406. [PubMed]
4. Choudhary S, Mishra CP, Shukla KP. Correlates of Nutritional Status of Adolescent Girls in the Rural Area of Varanasi. the Internet J of Nutr and Wellness, 2009, 7(2).