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"A STUDY TO ASSESS THE NUTRITIONAL STATUS AND TO DETERMINE THE EFFECTIVENESS OF A NUTRITIONAL AWARENESS PROGRAMME ON KNOWLEDGE REGARDING BALANCED DIET AMONG VISUALLY CHALLENGED YOUNG ADULTS IN SELECTED INSTITUTIONS OF MYSURU, KARNATAKA".

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ABSTRACT

Nutrition plays an important role in every human being, especially visually challenged young adults. Visually challenged young adults are more exposed to various health problems. Some of the risks cannot be avoided by these adults, but they can boost their health through proper health management. By inculcating a Nutritional awareness program among visually challenged young adults, we can help them improve their quality of life.

Aim: The aim of this study is to assess the nutritional status and to determine the effectiveness of a nutritional awareness program on knowledge regarding balanced diet among visually challenged young adults in selected institutions of Mysuru, Karnataka".

Methods: The research design selected for this study was Pre-experimental - One group pre-test and post-test design. A pre-test observation of the dependent variables is made before the implementation of the treatment to the selected group, the treatment is administered, and finally, a post-test observation of dependent variables is carried out to assess the effect of treatment on the group. Non-probability purposive sampling technique was used to select the visually challenged young adults for the study.

Results: The result of the study revealed that the Nutritional awareness program on a Balanced diet was effective in increasing the knowledge of visually challenged young adults regarding Balanced diet as

evidenced by computed paired 't' test which was statistically significant at 0.05 level of significance($t_{(39)} = 2.021$; $p>0.05$).

Conclusion: Thus it was concluded that the Nutritional awareness programme on balanced diet was effective in increasing the knowledge of visually challenged young adults regarding balanced diet. The study findings stresses the increasing responsibility of health professionals in planning and implementing various educational strategies to improve the knowledge of visually challenged young adults regarding balanced diet which in turn helps to reduce the risk of various health problems.

Key words: Nutritional awareness programme; balanced diet; visually challenged young adults.

INTRODUCTION

The nutritional status of the population has a vital role in overall socio economic development of the country. The State has already implemented well formulated plans and programmes for providing food security and improving the nutritional status of its citizens, especially young adults. For the past three decades, three parallel nutrition programmes (Integrated Child Development Scheme (ICDS), The Nutritious Meal Programme (NMP), The internationally acclaimed World Bank Funded TINP I (1980-89) was the first project to focus on growth monitoring and selective nutrition supplementation to the most vulnerable population) have been launched and they cover the entire target population in the State.

Nutritional status is the evident state of nutrition of an individual. A person is said to have a good nutritional status if he shows no evidence of malnutrition, whether open or latent. Nutrition is the aspect of science that interprets the relationship of food to the functioning of living organisms. It includes the uptake of food, liberation of energy, elimination of wastes and the biochemical synthesis that are essential for maintenance of normal growth and development. The nutritional status of any person is his/her health as dictated by the quality of nutrients consumed, and the ability of the body to utilize them for its metabolic needs. Signs and symptoms of poor nutrition are Unexplained Fatigue, Brittle and Dry Hair, Ridged or Spoon-Shaped Nails, Mouth Problems, Diarrhea, Apathy or Irritability and Lack of Appetite.

A balanced diet means getting the right type and amount of food and drink to supply nutrition and energy for maintaining body cells, tissues, and organs, and for supporting normal growth and development. A well-balanced diet provides enough energy and nutrition for optimal growth and development.

A balanced diet is not a crash diet, it is a way of eating the right nutrients that the body needs in order to be healthy. Human bodies are different and often they require different amount and type of nutrients. This can depend on age, gender, illness and the rate at which your body works. The following information is for general reference, underlining the basics of a balanced diet. This factsheet will cover how a nutritionist can help you create a personalized diet plan, and how they can support and advise you to achieve a healthy lifestyle.

Disability is an important part of health and social problems. It affects the lives of millions of people

directly and indirectly. Among all disabilities, visual disability is considered to be more important, as sight is one of the five important senses possessed by man.

Disability is a potential measure of health status of population. The loss of this one sense appears far more of a catastrophic than the loss of any one of the others; even the nutritional health policy of India reiterated that blindness is an important public health problem. Blindness has profound human and socio economic consequences in all societies Disabled people in India are a silent and invisible group in spite of their significant number. We know almost nothing about the existential experience of persons who live with visual disability.

World-wide, estimations of the number of adolescents and young adults who live with a disability (Visually impaired) vary widely. Estimating the number of disabled young people is complex, for two reasons. The first is that frequently, disabled young people are grouped together with children or adults, blocking attempts to estimate their numbers as a distinct group. The second is that definitions of disability vary widely. In some nations, only individuals with significant challenges are identified; in other nations, even those with mild disabilities are included.

In the twentieth century nutrition research, practice, and public policy shifted from focus on the quantitative aspects—to ensure food security and eradicate nutritional deficiencies—to a greater attention on the qualitative aspects—to achieve optimal, balanced, dietary intakes. In the twenty-first century nutrition research, practice, and policy will likely explore the following areas: relationship between human genetics and nutrition, the role of genetically modified foods in human health, the relationship of nonfood substances in the promotion of health and the bioengineering of functional foods, the promotion of economic growth and food security in developing nations to prevent or delay the undesirable health effects of malnutrition, and the prevention and treatment of the obesity epidemic in adults. Relationships between food intake and human health will continue to be of great public interest, and nutrition and food scientists will face new challenges in a faster changing environment.

Nutrition plays an important role in every human being especially visually challenged young adults. The quantity of nutritional information concerning symptoms of malnutrition is insufficient for visually challenged young adults. Therefore upgrading nutritional awareness and knowledge through educational courses and providing comprehensive and necessary information concerning malnutrition, signs and symptoms, and prevention of its complications can greatly improve the quality of the visually challenged young adults and to live healthy as well as productive lives. So, the investigator is motivated to provide education through a Nutritional awareness program regarding a Balanced diet.

MATERIALS AND METHODS

An evaluative research approach with a Pre-experimental One group pre-test post-test design was adopted in this study. The sample size of 40, visually challenged young adults was taken by purposive sampling technique. The tool consists of items like Socio-Demographic variables, a Nutritional Assessment Checklist, and a structured knowledge questionnaire regarding Balanced diet. The reliability of the nutritional

assessment checklist was tested for reliability using the inter-rater method. The Karl Pearson coefficient of correlation (r) for nutritional assessment was 0.86. Hence the tool was found reliable. The framework of the study is based on King's goal attainment theory (1960**)**.

RESULTS

TABLE 1

Frequency and percentage distribution of visually challenged young adults according to their selected personal variables

n=40

Sl No	Sample characteristics	Frequency (f)	Percentage (%)
1	**Age in years**		
	1.1 18-20	22	55%
	1.2 20-22	18	45%
2	**Gender**		
	2.1 Male	24	60%
	2.2 Female	16	40%
3	**Religion**		
	3.1 Hindu	31	77.5%
	3.2 Muslim	5	12.5%
	3.3 Christianity	4	10%
	3.4 Any other		
4	**Monthly income (in rupees)**		
	4.1 <5000	14	35%
	4.2 5000-10000	21	52.5%
	4.3 10000-15000	5	12.5%
	4.4 >15000		
5	**Type of food**		
	5.1 Vegetarian	22	55%
	5.2 Mixed	18	45%
6	**Any family history of GI system disorder**		
	6.1 Yes	3	7.5%
	6.2 No	37	92.5%
7	**How many meals do you have per day?**		
	7.1<2 meals	8	20%

	7.2 2-3 meals	22	55%
	7.3 >3 meals	10	25%
8	**How frequently do you eat in hotels?**		
	8.1 Daily	4	10%
	8.2 Once in a week	17	42.5%
	8.3 Once in a month	19	47.5%
9	**Do you attend any educational programme regarding balanced diet?**		
	9.1 Yes	2	5%
	9.2 No	38	95%

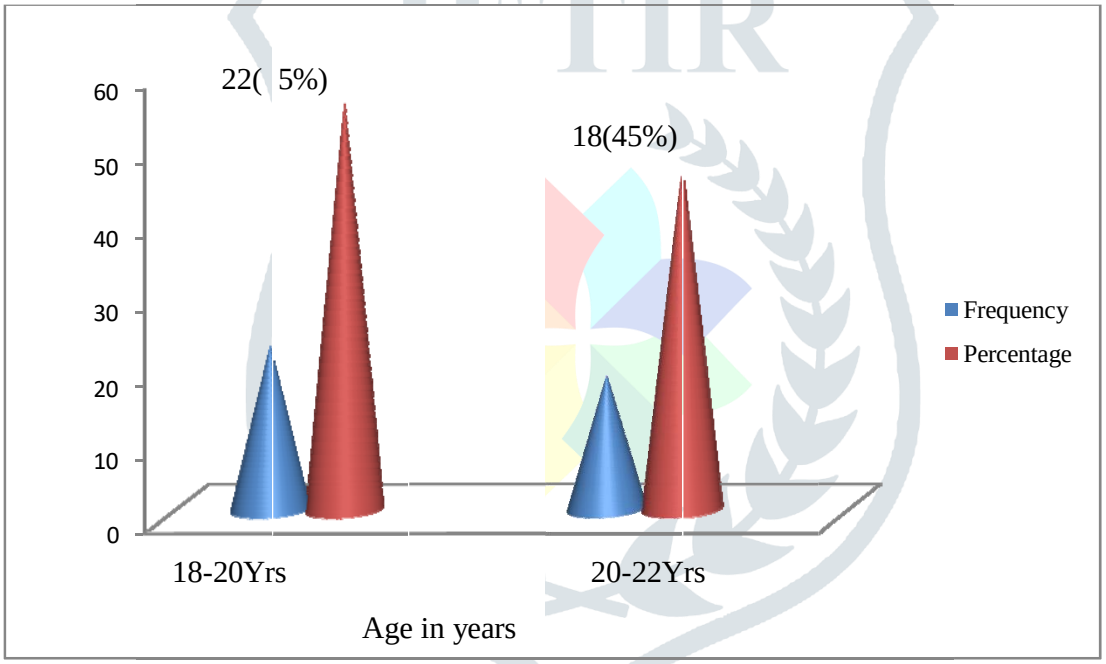

Figure 1: Frequency and percentage distribution of visually challenged young adults

according to their age

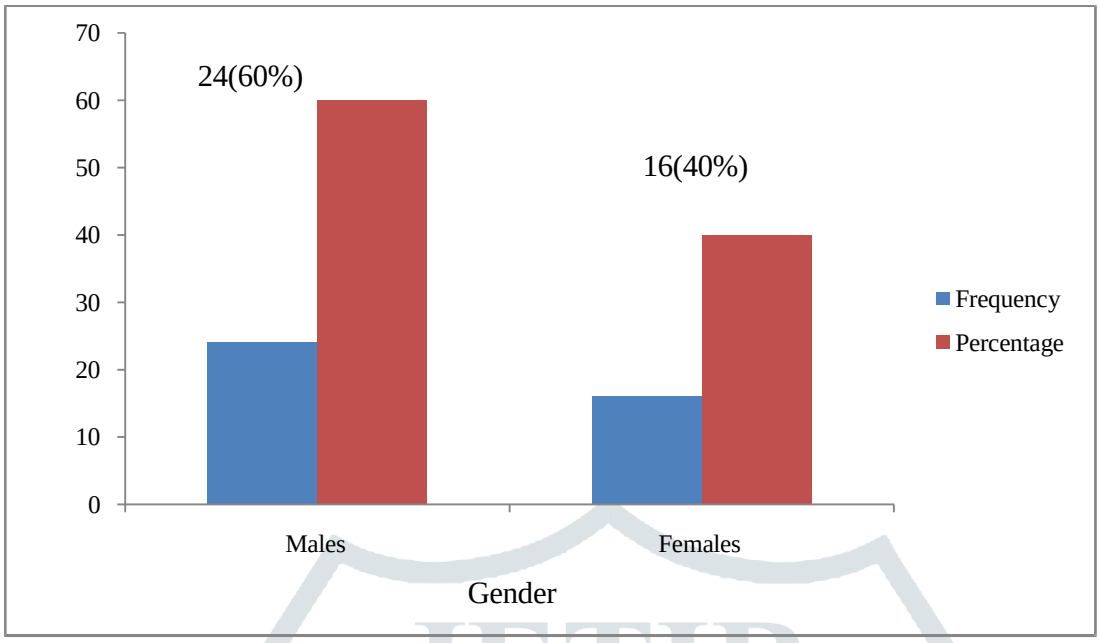

Figure 2: Frequency and percentage distribution of visually challenged young adults according to their gender

TABLE 2

Frequency and percentage distribution of visually challenged young adults according to their nutritional status

n=40

Nutritional status	Frequency (f)	Percentage (%)
No deficiency (1-10) (0-25%)	29	72.5%
Mild malnutrition (11-20) (26-50%)	7	17.5%
Moderate malnutrition (21-30) (51-75%)	4	10%
Severe malnutrition (31-40) (76-100%)	0	0

It is evident from Table 2 shows that majority of visually challenged young adults 29(72.5%) had no deficiency, 7(17.5%) were had mild malnutrition and 4(10%) of samples had moderate malnutrition.

NUTRITIONAL STATUS

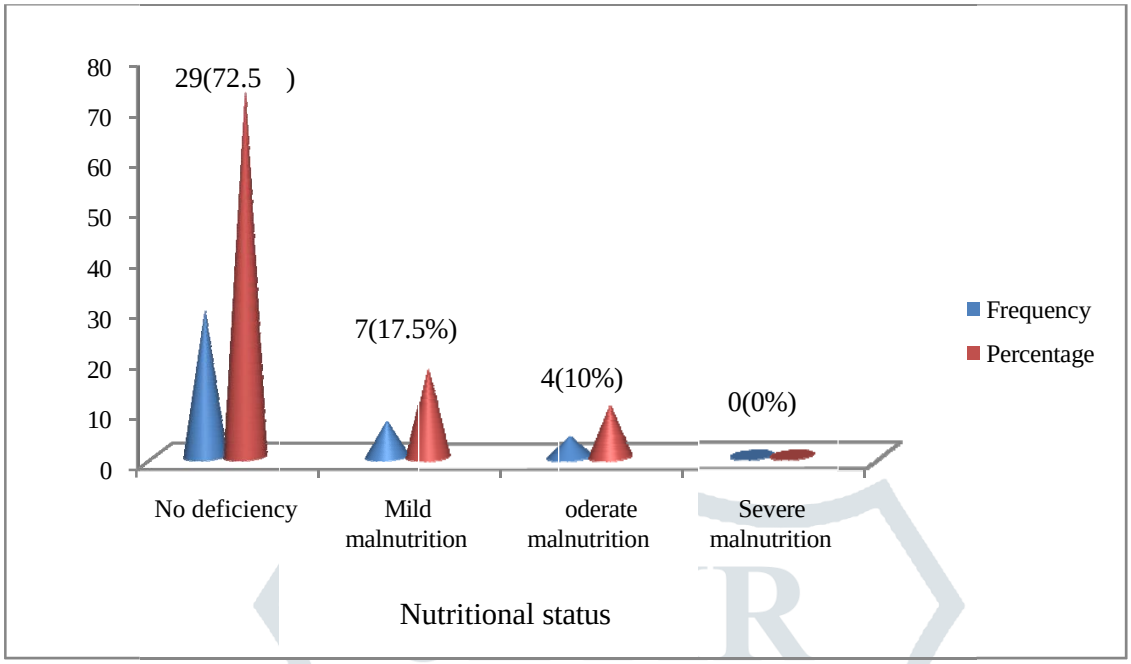

Figure 3: Frequency and percentage distribution of visually challenged young adults according to their nutritional status

TABLE 3

Frequency and percentage distribution of knowledge scores of visually challenged young adults according to their pre-test and post-test scores.

n = 40

Knowledge scores	**Pre test**	**Post test**
	f (%)	**f (%)**
Poor knowledge (0-15)	32(80%)	7(17.5%)
Average knowledge (16-23)	8(20%)	24(60%)
Good knowledge (24-30)	0(0%)	9(22.5%)

It is evident from Table 3 that, majority of the visually challenged young adults 32(80%) had poor knowledge and 8(20%) of them had average knowledge regarding balanced diet in the pre-test. Data also revealed that in the post test, there was an increase in the knowledge level of visually challenged young adults i.e. 7(17.5%) of them have scored poor knowledge and 24(60%) have scored average level of knowledge and 9(22.5%) have scored good knowledge regarding balanced diet.

KNOWLEDGE SCORES

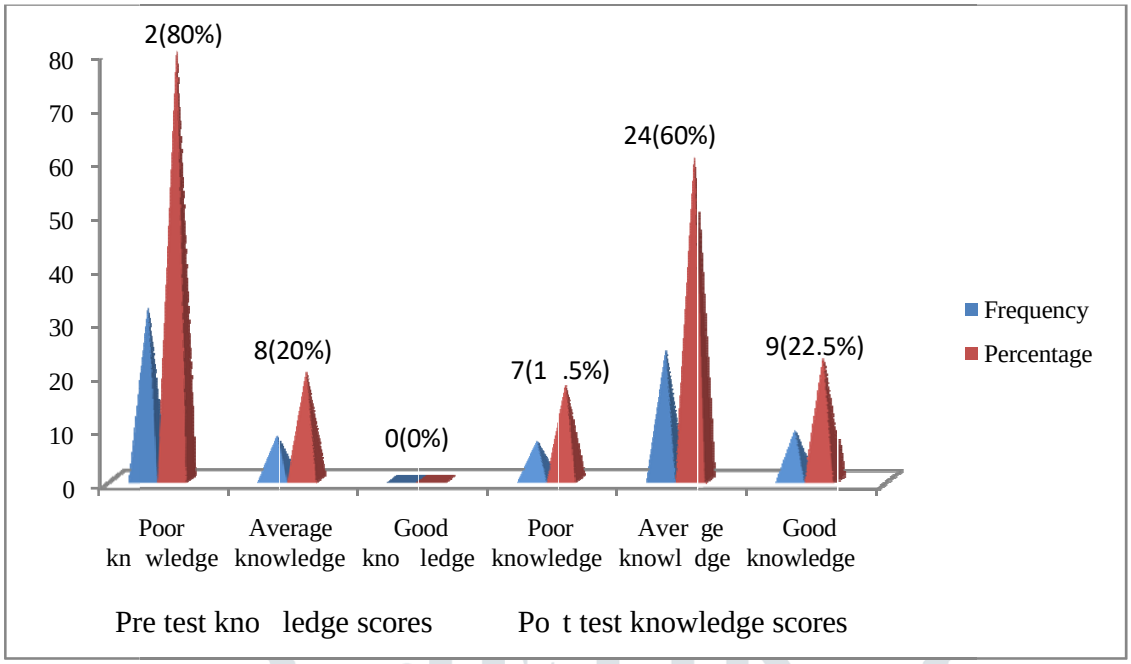

Figure 4: Frequency and percentage distribution of knowledge scores of visually challenged young adults according to their pre-test and post-test scores

TABLE 4

Mean, Median, Standard deviation, Range of pre-test and post-test knowledge score of visually challenged young adults

n=40

Test	Mean	Median	Range	SD
Pre test	11.9	11	7-18	±3.104
Post test	19.9	19	14-28	±3.992

The data presented in Table 4 shows that, the pre-test knowledge score ranged from 7-18 and the post-test knowledge score ranged from 14-28. The mean pre-test knowledge score is 11.9 with standard deviation of ±3.104 and the mean post-test knowledge score is 19.9 with the standard deviation of ±3.992. This indicates that there was an increase in knowledge scores of visually challenged young adults after the awareness programme.

TABLE 5

Mean, mean difference, standard deviation difference, standard error and paired 't' value of pre-test and post knowledge scores of visually challenged young adults.

n=40

Knowledge scores	Mean	Mean Difference	S.D. Difference	Standard Error	Paired 't' test value
Pre-test	**11.9**				
		8	**±1.7464**	**0.799**	**28.97***
Post-test	**19.9**				

$t_{(39)}$= 2.021; p<0.05* significant.

The data presented in the Table 5 shows that the mean difference between pre-test and post test knowledge score is **8**. To find the significance of difference in mean knowledge level, a paired 't' test was computed and obtained value of paired 't'= **28.97**, p<0.05 is found to be significant. Hence the result does not support null hypothesis H_{01} and research hypothesis is accepted. It is inferred that there is significant difference between mean knowledge scores of pre and post test scores.

TABLE 6

Chi-square values between knowledge level of visually challenged young adults with their selected personal variables

n=40

Sl. No.	Personal variables	Poor Knowledge	Average and good Knowledge	chi square
1	**Age in years**			
	1.1 18-20	16	6	1.834#
	1.2 20-22	16	2	
2	**Gender**			
	2.1 Male	18	6	1.193#
	2.2 Female	14	2	
3	**Religion**			
	3.1 Hindu	25	6	0.2#

	3.2 Any other	7	2	
4	**Monthly income (in rupees)**			
	4.1 <5000	13	1	2.618#
	4.2 5000-10000	19	7	
5	**Type of food**			
	5.1 Vegetarian	16	6	1.834#
	5.2 Mixed	16	2	
6	**Any family history of GI system disorder**			
	6.1 Yes	3	0	Fisher exact probability=0.916
	6.2 No	29	8	
7	**How many meals do you have per day?**			
	7.1<2 meals	8	8	Fisher exact probability=1.56
	7.2 2-3 meals	24	0	
8	**How frequently do you eat in hotels?**			
	8.1 Once in a week	17	4	0.176#
	8.2 Once in a month	15	4	
9	**Do you attend any educational programme regarding balanced diet?**			
	9.1 Yes	1	1	0.940#
	9.2 No	31	7	

$\chi^2_{(1)}$=3.84; p>0.05; # = Yates correction done.

The data presented in table 6 shows that there was statistically no significant association between the level of knowledge of the visually challenged young adults with their selected personal variables. Hence the null hypotheses is accepted inferring that there is no significant association between the level of knowledge of visually challenged young adults regarding Balanced diet with their selected personal variables.

DISCUSSION:

Data related to Nutritional assessment revealed that 72% of visually challenged young adults had no deficiency. Data related to knowledge of visually challenged young adults regarding balanced diet revealed that majority (80%) of the visually challenged young adults had poor knowledge and 20% of the visually challenged young adults had average knowledge. These findings were consistent with findings of other studies.

Paired 't' value was computed to determine the significance of difference between mean pretest and post test knowledge scores of visually challenged young adults regarding balanced diet. The computed value of $t'_{(39)} = 28.97$ was found significant at
0.05 level. Hence there was a statistically significant difference between mean pretest and post test knowledge scores of visually challenged young adults.

This indicated that the visually challenged young adults had significant gain in knowledge after attending health awareness programme on balanced diet.

The data presented in the Table 6 reveals that the computed chi square values of association between the pre test level of knowledge of visually challenged young adults regarding balanced diet with their selected personal variables does not show any statistical significance. Hence it is inferred that there is no association between the level of knowledge of visually challenged young adults with their selected personal variables.

CONCLUSION

The present study is focused to assess the nutritional status and to determine the effectiveness of a nutritional awareness programme on knowledge regarding balanced diet among visually challenged young adults in selected institutions of Mysuru, Karnataka".

Analysis of the findings revealed that majority (80%) of the visually challenged young adults had poor knowledge regarding balanced diet. And the study did not show any significant association between the level of knowledge of visually challenged young adults with their selected personnel variables.

The findings revealed that Nutritional awareness programme on balanced diet was effective in increasing the knowledge of visually challenged young adults regarding balanced diet as evidenced by computed paired 't' test which was significant at 0.05 level of significance.

Thus it was concluded that the Nutritional awareness programme on balanced diet was effective in increasing the knowledge of visually challenged young adults regarding balanced diet. The study findings stresses the increasing responsibility of health professionals in planning and implementing various educational strategies to improve the knowledge of visually challenged young adults regarding balanced diet which in turn helps to reduce the risk of various nutritional problems.

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