

Effect of diet in diabetic and healthy persons

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Abstract: *In the present research purposive sampling technique was used for finding the relationship of stress level with nutritional status between diabetic and healthy persons. The sample was taken from Ujjain (M.P.). On the basis of the bio-data sheets 204 diabetes patients were taken from various hospitals of Ujjain city as subjects in this study selected diabetic subjects were type two diabetes patients. Diabetic males and females were 201 and healthy males and females were 203 in numbers. They were between age range of 30 to 60 years. Total numbers of respondents were equally matched on demographic variables such as gender, age, education and place. Research findings are -*

- 1. No difference was found in stress level of vegetarian and non-vegetarian males and food pattern as they were following.*
- 2. Stress level of non-vegetarian females was found high.*

Key Words: *stress, blood glucose, dietary patterns, nutrition.*

1. INTRODUCTION :

Many years ago no one thought about diabetes, it was a rare disease in rare people. After some time diabetes was found in a special class people, who were rich and women of those families spent their time in very comfortable situation. The explosive growth of diabetes from across the country from the 1980s to till now is essentially multifactorial which is very real and large.

2. DIABETES TYPE 2 [T₂DM] :

Diabetes Type 2 is the most common form of diabetes. It causes blood glucose (sugar) level to rise higher than normal. This is also called hyperglycemia. The body does not use insulin properly. This is called insulin resistance. At first pancreas makes extra insulin to make up for it. But over time it isn't able to keep up and can't make enough insulin to keep blood sugar at normal level.

3. STRESS :

Stress results when something causes the body to behave as if it were under attack. Sources of stress can be physical like injury or illness. Or they can be mental like problems in marriage, job, health or finances. When stress occurs the body prepares to take action. This preparation is called the fight - or flight response. In the fight-or-flight response, levels of many hormones shoot up. Their net effect is to make a lot of stored energy - glucose and fat - available to cells. These cells are then primed to help the body get away from danger. In people who have diabetes the fight-or-flight response does not work well. Insulin is not always able to let the extra energy into the cells. So glucose piles up in the blood.

Colmen "Stress like a motive may be partly or wholly unconscious, through the presence of uneasiness or anxiety may be the clue that stress is present. Stress inevitable and sometimes chosen voluntarily, mental health results not from lack of stress but ability to cope with it satisfactory."

Vicki Griffin, Edwin Nablett et al. said that not only does prolonged stress adversely affect nutritional status and needs, but the nutritional habits also affect how prone is person to stress. After reviewing many related studies overall the results suggest that a dietary change can remediate the emotional stress exhibited by some individuals.

Kevin D Langero, Luis M. Falcon et al. 2011, done a cross sectional study. The Boston Puerto Rican Health Study (BPRHS) aims to understand relationship between psychological stress, nutrition and chronic health conditions in Puerto Rican adults nutrient intake were calculated from a database developed using nutrient information from the nutrition data system for research software version 2007 developed by the nutrition coordinating center university at Minnesota, Life Stress was measured by using the Spanish version of the perceived stress scale (pss) Cohen Kamarck and Mermelstin (1983) perceived stress was associated with lower intake of protein, fruit, vegetables fibre and omega 3 fatty acids and higher intake of carbohydrate and salty snacks sweets and high glycemic index. Higher perceived stress in women was associated with a higher BMI and more frequent fast food consumption.

Hypothesis :

- H₀₁** : There would be found no significant difference between diabetic and healthy males on their stress level with food pattern.
- H₀₂** : There would be found no significant difference between diabetic and healthy females on their stress level with food pattern.

4. METHODOLOGY :

The sample was taken from Ujjain city. Diabetic patients were taken from various hospitals by administered personal bio-data sheet. Out of three hundred only 201 diabetic patients of type - 2, were taken in present study and for healthy persons. On the basis of their bio-data sheets subjects were drawn. Diabetic and healthy persons were equally matched on age group gender, education and place. Selected subjects were administered the following test -

- * Personal bio-data sheet
- * 24 hours dietary recall questionnaire.
- * Clinical profile of the diabetic subjects.
- * Personal stress source inventory by Arun Kumar Singh, Ashish Kumar Singh and Arpana Singh.

The PSSI test was constructed by Arun Kumar Singh, Ashish Kumar Singh and Arpana Singh in 1971. It consists of with 35 items. Its scoring process in every item marked "Seldom" is given score of '1', 'sometimes' is given score of '2' and 'frequently' is given score of 3 and unmarked items are given score of zero.

.79 was the reliability of the test, it was checked with the help of test-retest method and validity was checked with content validity and concurrent validity. Data analysis is completed by SPSS review that diabetic persons are more stressful than healthy.

5. RESULT AND ANALYSIS :

- H₀₁** : There would be found no significant difference between vegetarian and non vegetarian males on their stress level with food pattern.

Table No. 1 : Following table shows stress mean, SD and Critical Ratio of vegetarian and non-vegetarian males with their food pattern.

	Stress	N	Mean	SD	C.R.	p
Diabetic and Healthy	Vegetarian Males	93	53.68	26.52	0.38	NS
	Non-vegetarian Males	105	58.88	24.96		

The result of C.R. for stress level of vegetarian and non-vegetarian males was found not significant (C.R. = 0.38, P = NS), Thus the null hypothesis that there would be no significant difference between diabetic and healthy males on their stress level with food pattern was accepted as similar the studies of Vicky Griffin et al.

- H₀₂** : There would be found no significant difference between vegetarian and non-vegetarian females on their stress level with food pattern.

Table No. 2 : Following table shows mean SD and Critical Ratio of stress level of vegetarian and non-vegetarian females with their food pattern.

	Stress	N	Mean	SD	C.R.	p
Diabetic and Healthy	Vegetarian Males	95	49.83	25.45	2.20	S*
	Non-vegetarian Males	111	57.54	24.52		

[* Significant at 0.05]

The result of C.R. for stress level and food pattern of diabetic and healthy females with food pattern showed significant difference. ($CR = 2.20$, $p = 0.05$) thus the null hypothesis that, there would be found no significant difference between diabetic and healthy females on their stress level and food pattern was rejected. As similar the findings of Kevin D. Langero, Louis M. Falcon et al. 2011.

6. CONCLUSION AND SUGGESTIONS :

1. No difference was found in stress level of vegetarian and non-vegetarian males and food pattern as they were following.

2. Stress level of non-vegetarian females was found high.

Dietary patterns characterized by high consumption of fruit and vegetables, whole grains, fish and poultry and by decreased consumption of red meat, processed foods, sugar sweetened beverages and starchy foods may retard the progression of type 2 diabetes. Healthy diets can help people to live more years without type 2 diabetes. But the dietary awareness still need to pay attention in citizens of India. There is better improvement about nutrition related knowledge in common peoples who are highly educated but it is more important that they would aware about their psycho-physical health.

SELF CARE FOR ALL :

- * Always do good activities for health benefits.
- * Take help of psychological expert in tough situations of life.
- * Follow Tailor-made diet plans for self.
- * Healthy routine should be followed in life.

STEPS TO GOOD MENTAL HEALTH :

- * Think always positive. Prevent negative feelings.
- * Don't worry too much about yourself.
- * Share personal problems with friends, husband/wife. They may be providing for a good solution.
- * Love your family.
- * Stay healthy by following regular routine, yoga, exercise, aerobics as you feel comfortable.
- * Take enough sleep.
- * Never take alcohol and tobacco.
- * Listen light music, do gardening or read books for relieve stressful conditions.

REFERENCES :

1. Kevin D. Laugero, Luis M. Falcon and Katherine L. Tucker, U. S. Department of Agriculture, 2011. "Relationship between perceived stress and dietary and activity patterns in older adults participating in the Boston Puerto Rican Health Study.
2. K. Park 2007. Preventive and social medicine 20th edition.
3. K. Park 2009, Preventive and social medicine. John M. Neale.
4. Laboratory diagnosis and monitoring of Diabetes Mellitus, 2002. W.H.O.
5. Diagnostic and statistical manual of mental disorders 4th edition 2000. Text Revision Washington DC, American Psychiatric Association, p. 781.
6. Vicki Griffin Edwin Neblett et al. "The heaviest rainfall on the leaky house. www.nfsda.org.