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EFFECTS OF BALANCED DIET AND BALANCED LIFE ON DISEASES

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ABSTRACT
Interventions other than medication used to maintain health, such as a balanced diet and regular exercise. Two hundred adults (130 men and 70 women) between the ages of 25 and 60 participated in the study. The questionnaires were filled out at PCSIR laboratories in Karachi, where the research was carried out. Research was conducted throughout the months of March and May of 2012. Those participants who made lasting changes to their food and way of life were re-examined in the spring of 2013; the initial round of tests had taken place from March to June of 2012. An expert in data collection from patients who visited the OPD at PCSIR labs filled out the questionnaire. The findings suggest that a large percentage of Americans adopt a sedentary lifestyle and avoid participating in physical exercise, which can increase the risk of developing health problems due to the reduced amount of energy and calories burned. People everywhere would benefit from increased efforts to educate the public and foster an environment conducive to leading healthy lives. Long-term energy balance may be influenced by a variety of lifestyle choices. Changing one's lifestyle, specifically by eating less and moving more, is the most effective method for losing weight. Maintaining a healthy weight and achieving an energy balance are both aided by modest, consistent physical activity over time.

Key Words: Balanced diet, Exercise and Weight loss

1.INTRODUCTION
The scientific evidence is growing in favour of the view that alterations in diet and physical activity have strong effects, both positive and negative, on health problems throughout life, and this shift has brought nutrition and physical activity to the forefront as a major modifiable determinant of chronic disease.[1] Changing one's diet may have an effect on one's current health, but regular exercise may have a greater impact on whether or not one may develop cardiovascular disease or diabetes later in life. But rules and common-man implementations can shift these ideas.

To this day, the prevention of chronic diseases is not a priority in the food policy of many developing countries. [2] Although the consultation's original goal was to look at nutrition and lifestyle as a non-pharmaceutical approach to treating and preventing chronic diseases, it did end up focusing on the latter.

Physical activity-induced energy expenditure is a major factor in the energy balance that underlies the maintenance or gain of body mass. The global epidemic of overweight and obesity is likely caused by a decrease in energy expenditure due to decreased physical activity or increased fatty diets. [3] The proportion of fat, muscle, and bone tissue in the body can be significantly altered with regular physical activity. The risk and pathogenesis of multiple

chronic diseases, including cardiovascular and metabolic disorders, can be affected by both physical exercise and diet since they share many of the same metabolic pathways.

Behavioral patterns of physical exertion and dietary intake are distinct and interdependent. In both industrialised and developing countries, but especially among the poor in big cities, insufficient physical activity is a major and quickly growing public health risk. The best results in preventing chronic diseases can only be achieved if the plans and policies in place fully acknowledge the critical importance of a balanced diet, nutrition, and physical exercise.[4]

The health and nutritional status of populations, especially in emerging and transitional nations, are profoundly affected by changes in lifestyle. Inadequate dietary habits, reduced physical activity, and increased tobacco use have contributed to an uptick in diet-related metabolic illnesses, particularly among the poor, despite rising incomes and improved access to a wider variety of foods and services.[5]

Eating less and exercising more, as is commonly recommended, seems like a simple solution to the problem of maintaining a healthy weight. [6]Whether or whether a person is able to achieve and maintain long-term energy balance may be influenced by a number of lifestyle factors. Consuming sugary drinks, sweets, and processed foods may make it more difficult, while eating more complete grains, fruits, and vegetables may make it simpler.

The amount of time spent sleeping may also have an effect on one's energy intake or output. Interesting lifestyle practises include regular exercise, getting enough sleep, eating well, and not smoking. [7]Measurements of height and weight were taken for body mass index and other purposes. Changes in eating habits, drinking habits, exercise routines, time spent in front of the TV, and cigarette smoking all have a role in the development of long-term obesity. Changes in calorie intake, energy expenditure, or both must mediate all of these associations.

Starches, refined cereals, and processed meals have strong favourable connections with transition. [8]Increased consumption of certain foods, such as vegetables, nuts, fruits, and whole grains, is linked to decreased weight gain. Because of their inverse correlations with weight gain, it's likely that eating more of these meals led to eating fewer calories overall.

There is evidence to imply that there is a negative correlation between the rate at which one exercises and their weight over time. If a person makes changes to their routine exercise, nutrition, or lifestyle habits, they may reach their new steady state weight within a few months.[9]

The shortening of people's sleep cycles is also consistent with the rising prevalence of overweight and obesity. People who sleep between 6 and 8 hours each night gain the least amount of weight compared to those who sleep less than 6 hours or more than 8 hours.

In many cases, ailments primarily caused by metabolic disorders can be cured by making changes to a person's diet and way of life. [10]The rapid pace of industrialization, urbanisation, and economic development has coincided with rapid changes in diet and lifestyle that have had profound effects on the health of the population as a whole. The relationship between food intake and output has been scrutinised, with evolving recommendations made for optimal health. New dietary and lifestyle recommendations from the American Heart Association emphasise the importance of a heart-healthy diet and active living in the prevention of cardiovascular disease.[11]

1.2 Dietary changes:

Increased consumption of potatoes, potato chips, and sweetened beverages were the dietary components most positively associated with weight changes per serving per day. Changes in weight were shown to be positively correlated with higher intakes of refined grains and sugary and fatty foods. Reduced intake of healthy foods such vegetables, whole grains, fruits, nuts, and yoghurt was associated with increased weight gain.[12]

1.3 Eating a Well-Rounded Diet

Getting enough protein, carbohydrates, fats, vitamins, minerals, water, and fibre in the appropriate amounts and proportions every day is the hallmark of a balanced diet. This kind of diet is useful since it promotes health and prepares people for possible food shortages. [9] The buffer zone ensures that we won't go hungry even if we skip meals for a few days or temporarily reduce our intake of a certain nutrient. In the case where an individual's balanced diet meets their RDAs, the safety net is already in place. Relative daily allowances are determined with buffers in mind.

- Offers a diverse selection of tasty dishes
- All nutrients are present in amounts adequate to meet the dietary guidelines.
- Provides a nutritious buffer
- Properly proportioned nutrients
- Promotes and supports a healthy lifestyle; achieves and maintains a normal body mass index;

It's an effort to strike a healthy balance between the various food groups consumed on a daily basis. All food groups should be represented in a healthy diet. Quantities and ratios of these foods should be set so as to provide all the nutrients we need on a daily basis. Additionally, the nutrients should be stored in the body to some degree so that it can function during times of limited food consumption. 50%-60% of the calories in a healthy diet come from carbs, 10%-15% from proteins, and 20%-30% from fats. Additionally, adequate macronutrients and other protective compounds, such as phytochemicals, are required for optimal health and should be provided through the diet.

Subjects were then randomly assigned to one of three diets for 8 weeks: (a) the control diet; (b) a diet rich in fruits and vegetables (8-10 servings daily) providing potassium and magnesium at the 75th percentile of US consumption and 31 g fibre daily; or (c) a combination diet rich in fruit and vegetables (10 servings daily) and low-fat dairy products (three servings daily) and low in saturated fat and total fat, providing potassium, magnesium, and cal.

The DASH combination diet and the fruit and vegetable diet lowered SBP and DBP more than the control diet, even when sodium consumption and body weight were held constant. The effect was significantly more pronounced in hypertensive individuals. Within two weeks of starting the combo diet, the blood pressure drops started to show.

2.MATERIAL AND METHODS:

A total of 200 people, 130 males and 70 females, aged 25 to 60 years old, who were residents of and had ties to PCSIR participated in the study. Prospective data on lifestyle and diet were obtained from those who agreed to participate in the study between March and May of 2019. From March through June of 2018, the same patients were re-evaluated after a year.

Data collection is followed by counselling with participants, during which they are encouraged to cut back on their intake of processed and fast foods, as well as those that are rich in sugar, fat, and cholesterol. They were urged to eat more healthfully by eating more fruits, vegetables, legumes, whole grains, fish, and white meat. In addition to dietary recommendations, they were urged to engage in at least 30 minutes of regular, physical exercise each day and cut back on sedentary pursuits like watching television or sleeping for more than eight hours each night.
Each participant was contacted via phone once every three months during the study period to check in on their progress, offer support, and provide additional motivation.
The volunteers were reevaluated after they had made certain changes to their food and way of life to see if there had been any noticeable improvement. Obese patients were seen to lose weight by watching their diets and increasing their activity levels one year after their initial consultation. They were counselled to cut back on sweets and fats and increase their intake of fresh fruits and vegetables as part of a recommended lifestyle shift.
Questions on smoking were also included in surveys about diet and lifestyle (current, former, never).
Low-activity individuals were classified as those who either worked in a sedentary occupation with no time for leisure activities, worked in a sedentary occupation with less than half an hour of leisure time per day, or worked in a standing occupation with leisure time. People who engaged in activity levels beyond those specified here were considered to be highly active. Meat, fish, and fruit consumption were evaluated based on the relative amounts of these foods consumed. Meats were categorised as either red, processed, or white, while fish was broken down into two categories, white and fatty. Fruits in composite dishes were counted as fruit consumption, but fruits in juices, cereals, and jams were not. Vegetables of all kinds, with the exception of beans, legumes, herbs, pickles, chutneys, and canned tomato sauces.

Indices:

1. BMI (BMI)
2 The State of Health in General (problems)
3 Engage in some form of physical activity (exercise)

3.RESULTS

Table 1. Body mass index (BMI)

Month of Observation	Body Mass Index (BMI) in Range		
	Less Than 25	Between 25 to 30	More Than 30
March to May 2018	56	140	10
March to June 2019	74	110	30

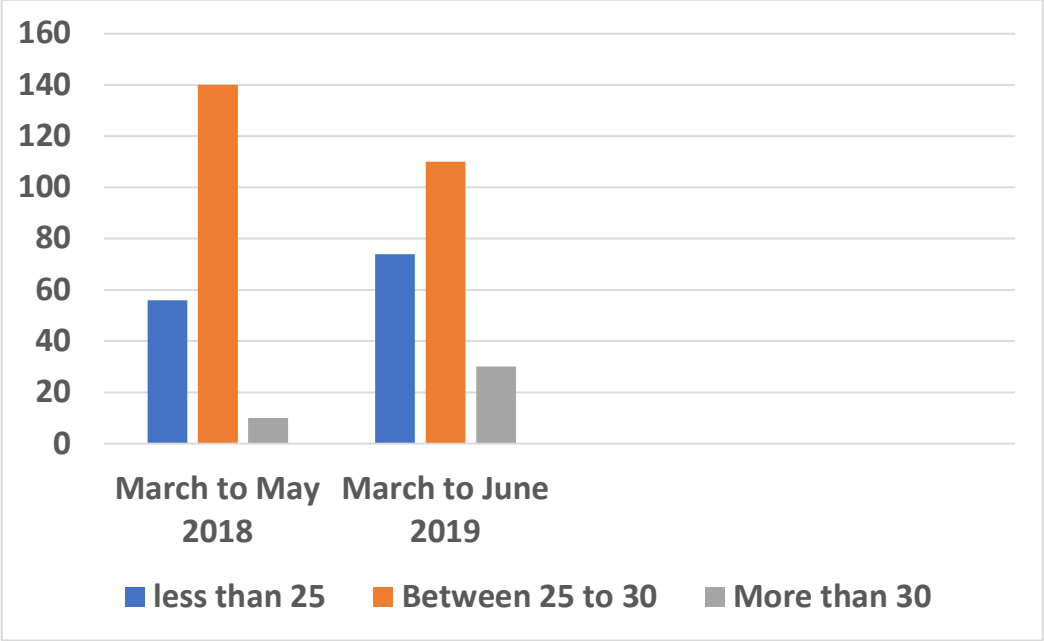

Fig 1. Body mass index (BMI)

Table 2. General health status (problems)

Month of Observation	General Health Status (Problem)						
	Sleep Disturbance	Depression	Mood Variation	GIT Complain	Blood Pressure	Diabetes	No Complain
March to May 2018	31	27	55	25	7	5	59
March to June 2019	22	15	39	17	8	7	101

Table 3.Physical activity (exercise)

Month of Observation	Physical Activity (Exercise)			
	Active Regular	Irregular	Occasionally	No Exercise
March to May 2018	11	22	85	92

March to June 2019	29	60	50	73

4.DISCUSSIONS

The present research shows that consuming certain foods and beverages, among other modifications, is linked to persistent weight gain. [13]As well as eating more and sitting around, smoking and watching too much TV are major contributors to gaining weight. Starches, refined grains, and processed foods are strongly linked to increased weight gain. A person's weight tends to fluctuate over time in tandem with their level of physical activity. [14]Usually, people who make changes to their diet, exercise routine, or other aspects of their daily lives will reach their new, stable weight within a few months. Obesity, which can be described as an excessive buildup of body fat, is caused by a long-term discrepancy between caloric intake and energy expenditure, with a high likelihood of hereditary predisposition. Obesity is a major risk factor for cardiovascular disease because it causes increasing endothelial dysfunction in both big arteries and the microcirculation.[15]

5.CONCLUSIONS

Learning to eat sensibly and maintain one's fitness is the first step in adopting a healthy lifestyle. Avoiding health problems like heart disease and diabetes is as simple as making smarter eating choices. Physical activity, on the other hand, has been shown to alleviate not only CNS issues including sleep disturbance, sadness, and mood variation, but also cardiovascular and metabolic illnesses. Inactivity, smoking, and excessive TV viewing are all risk factors for gaining weight. In addition to beverages, refined grains, processed meals, and carbohydrate intake are additional contributors to excess weight. Maintaining a healthy weight with regular exercise and a well-rounded diet is an excellent way to feel and look your best, as well as to improve your physical and mental health and fitness. You can do many 10-minute sessions throughout the day if you can't commit to a 30-minute block at once. Eat more whole grains, healthy fats, proteins in moderation, calcium and vitamin D, plenty of fruits and vegetables, and cut back on sugar and salt to achieve a good balance in your life and nutrition. Make a plan for your diet. The old adage that "early to bed and early to rise makes the person well, wealthy, and wise" is applicable here.

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