Journal of Auras Sports Sciences
Volume: 3 / number:1 / month January / year: 2025 / p.p.: 50-62
مجلــة الأوراس لعلوم الرياضة
المجلد: 3/ العدد: 1/ الشهر: جانفي/ السنة:2025 /ص ص: 50-62

Eating behaviors, physical activity and health

السلوكات الغذائية ،النشاط البدني والصحة

Heddouche Aissa [1]*،

[1]university of Batna 2 a.heddouche@univ-batna2.dz

ملخص:
التغذية هي أولوية للصحة العامة لذلك تهدف هذه الدراسة الى تحديد السلوكيات الغذائية لدى الافراد وتحليل العلاقات مع الصحة والنشاط الرياضي. وقد لوحظت ارتباطات كبيرة بين عدم كفاية النشاط البدني والسلوكيات الغذائية وسوء الصحة (السمنة وارتفاع ضغط الدم، وما إلى ذلك). إن الاستهلاك العالي للأطعمة النشوية و السكريات هي سلوكيات ترتبط بشكل منهجي بعوامل الخطر القلبية الوعائية وتسوس الأسنان وغيرها من الامراض الاخرى. فعدم وجود وجبة غذائية صحية او وجبات خفيفة غير متوازنة أو استهلاك كميات كبيرة من عصير الفاكهة يرتبط بمخاطر عالية لتدهور الحالة الصحية. ويلعب النشاط البدني الرياضي والسلوكات الغذائية الصحيحة دورا هاما في اجتناب الكثير من الامراض ويساهم في تحسين الصحة للفرد والمجتمع سواء.

الكلمات المفتاحية: الغذاء؛ السلوكات الغذائية؛ النشاط البدني ؛ الصحة.

Abstract:
Nutrition is a public health priority. The aim of this study was to identify eating behaviors in a population of health and to analyze the relationships with health. Significant associations between insufficient physical activity, dietary behaviors and poor health (obesity, hypertension, etc.) were observed. High consumption of bread/starchy foods are behaviors systematically associated with cardiovascular risk factors and dental caries. The relationships differ depending on gender: non-existent or unbalanced breakfast (men) and snacking or significant consumption of fruit juice and/or fruit (women) are associated with high risks of poor health.

Keywords: Eating behaviors, physical activity , health

*** Corresponding author: Heddouche Aissa**

Introduction

In Algeria, as in all countries, eating habits have evolved much more over the last fifty years than in previous centuries . New foods have been introduced, others have practically disappeared from the composition of meals. These profound changes present nutritional and health advantages and disadvantages . Numerous studies have made it possible to identify various nutritional factors (dietary, markers of nutritional status and physical activity), which are risk factors for the development of certain chronic diseases (cancers, cardiovascular diseases, obesity, diabetes, osteoporosis, anorexia…).

Food has always been a concern of populations and nutrition, considered as a means of acting on health, constitutes a priority in public health.

According to the WHO, 30% of cancers are attributable to dietary factors . Studies have also shown the link between diet and all-cause mortality . Furthermore, overweight and obesity appear earlier and earlier (16% of overweight children in 1990 compared to 5% in 1980) and particularly affect disadvantaged female populations. Prevalence has increased in Algeria, especially since the early 1990s .

The interface between eating behaviors, physical activity and health is a major subject of study in medicine, nutrition and psychology. These three elements are deeply interconnected and play a central role in maintaining physical and mental health. A balance between a healthy diet and regular physical activity is essential to prevent many chronic diseases, improve quality of life, and promote overall well-being. In this essay, we will explore the connections between these three factors and examine how each impacts health, highlighting the importance of adopting appropriate behaviors.

1. Eating Behaviors: A Fundamental Influence on Health

Eating behaviors refer to the eating habits and choices that characterize a person or a group. These behaviors are influenced by a combination of biological, psychological, social and environmental factors. The role of food in health is not just limited to providing energy, but also includes preventing disease and promoting well-being.

1.1. Eating Behaviors and the Risk of Chronic Diseases

An unbalanced diet, high in saturated fats, refined sugars and low in essential nutrients (vitamins, minerals, fiber) can lead to a series of health problems, including:

- **Obesity**: The link between poor diet and obesity is well established. High-calorie, low-nutrient foods, often called "processed foods," promote excess weight gain.

- **Cardiovascular diseases**: A diet high in saturated fat and salt is a major risk factor for heart disease.

- **Type 2 diabetes**: Excessive consumption of sugars and refined carbohydrates can lead to insulin resistance and promote the development of diabetes.

- **Cancers**: Although the relationship is complex, certain dietary habits, such as a diet that is too fatty or low in fruits and vegetables, are linked to an increased risk of certain types of cancer.

1.2. Factors That Influence Eating Behaviors

Food choices are often influenced by:

- Cultural and social factors: Culture and the social environment largely determine the types of foods consumed, their quantities and the way of preparing them.

- Psychological influences: Food can also be influenced by emotional state, social pressure, or even personal preferences.

- Economic and geographic factors: Access to healthy foods depends on economic resources and the availability of certain products in geographic areas.

1.3. Promoting Healthy Eating Behaviors

To improve public health, it is essential to adopt strategies to encourage a balanced diet. This includes:

- Nutritional education, which helps to understand the principles of a healthy diet.

- The implementation of public policies promoting access to healthy foods, such as school food programs and initiatives to reduce processed food products.

- Support for sustainable and environmentally friendly food choices.

2-The benefits of being aware of your eating habits

Becoming aware of your eating habits means being aware of:

• what you eat

• when you eat

• where you eat

• the way you eat

• why you eat

• the amount of food you eat

This can allow you:

• make healthier choices more often

• make positive changes to your usual eating behaviors

• to be more attentive to the foods you eat as well as your eating habits

• become more aware of your daily decisions regarding food

• reconnect with the experience of eating by creating awareness of your:

- Thoughts
- Emotions
- Sensations
- behaviors

3-What is an eating disorder?

An eating disorder is an “abnormal” eating practice associated with great psychological suffering, which sets in over the long term and whose consequences for the individual's health can be serious. In this type of mental

illness, attitudes towards one's body, weight and food are disrupted. Psychosocial functioning and quality of life are also very impaired.

Eating disorders generally appear during adolescence and mainly affect women. However, they can also occur in men, starting during childhood or adulthood.

Some authors mention that comorbidities affect up to 70% of people suffering from eating disorders: mood disorders (more than 40%), anxiety disorders (+50%), self-harming behaviors (+20%) and consumption. of substances (+10%).

4-How to become aware of your eating habits

4-1-Create an environment favorable to healthy eating

Your food environment changes depending on where you live, learn, work or play. Focus your attention on food and your food environment. No matter where you are, try to make changes to your environment so that the healthy choice is easier to make.

4-2-Use your senses

Being aware of the foods you eat allows you to pay attention to the aromas, textures, flavors and taste of foods. Find out what you like and what you don't like through your senses. This allows you to reconnect to the experience of eating and be more mindful of the foods you eat.

4-3-Take your eating habits into account

Think about your last meal or snack. Can you describe:

- the way you ate?
- Did you eat slowly?
- Were you distracted?
- Did you eat with other people?
- the reason you ate?
- Were you hungry?
- Were you offered anything to eat?
- what you ate?
- What did you eat and drink?
- when you ate?

- What time was it?
- How long has it been since you ate?
- where you ate?
- Were you in a place provided for this purpose?
- the amount of food you ate?
- How much food and drink did you consume?

Being able to remember and answer these questions means you were probably aware of your eating habits.

5-The different types of eating disorders

There are several major categories of eating disorders in the international classification. The most common are anorexia, bulimia and binge eating disorder. Other EDs such as food ingestion disorders (PICA, merycism, restriction or avoidance of food ingestion) are more atypical.

These complex conditions generally cause great suffering among patients, which is why they require appropriate treatment as soon as possible. Furthermore, although calculating the prevalence of these disorders is difficult to estimate, some studies consider that they affect between 4.8 and 9% of the world population.

5-1- Anorexia nervosa

This is a dietary restriction aimed at significant weight loss. Anorexia nervosa is characterized by an intense fear of becoming fat, despite apparent thinness and a weight below normal (established from BMI). We also find behaviors that interfere with weight gain, even though this is significantly low.

People suffering from anorexia nervosa are mainly women. The disease generally occurs after puberty, when the body is changing, and during adolescence when the issues are multiple and often a source of uncertainty.

Anorexia nervosa is also characterized by an alteration in the perception of weight and body image, similar to dysmorphobia. There are two types of anorexia nervosa: restrictive anorexia, the most common, characterized by weight loss through diet, fasting and excessive physical exercise, and anorexia with binge eating and vomiting (hyperphagic type /purgative).

5-2- Bulimia

A bulimic crisis corresponds to the ingestion of a volume of food well above normal in a limited time, generally less than 2 hours, in a compulsive or ritualized manner. The occurrence of these crises is associated with feelings of shame, guilt and loss of control.

People with bulimia often implement compensatory behaviors to counteract their weight gain: vomiting, taking laxatives or diuretics, periods of fasting and excessive exercise. Binges and compensatory behaviors occur at least twice a week for three months, on average. They can also become multiple daily and sometimes nocturnal. The number of attacks per week also makes it possible to quantify the level of severity.

Bulimic disorder can be associated with other types of addictions, such as alcohol or cannabis. Patients (the vast majority of them are women) are of normal weight or are sometimes underweight or overweight. However, bulimia can go unnoticed by those around you.

5-3- Binge eating disorder

Binge eating disorder, or binge eating disorder, presents in the form of uncontrolled and recurrent binge eating, without compensatory behaviors. Generally, a certain restriction is observable, which reinforces food urges. The absence of compensatory behaviors is what differentiates binge eating disorder from bulimia.

The individual will eat large quantities of food in the absence of feelings of hunger, until they feel painful abdominal distention. He seeks this feeling of distension even if it is uncomfortable. He eats alone out of embarrassment and will then feel guilty and depressed. Note also that the sex ratio is less unbalanced than that of bulimia or anorexia.

This pathology, which generates great psychological suffering, generally causes significant excess weight, or even obesity, sometimes morbid. Still little known, hyperphagia is often wrongly confused with obesity. However, there is no emphasis on excess weight as is often observed in obesity, there are fewer comorbidities and the outcome is more favorable when appropriate psychological care is offered. In the treatment of this mental pathology, implementing a diet is of no use. Misdiagnosis of this disease can have disastrous consequences and make the disorder even worse.

5-3- Unspecified eating disorder

Eating disorder not otherwise specified is a DSM-5 diagnosis used to describe all problems that do not precisely meet the criteria for specific eating disorders, such as anorexia nervosa, bulimia and binge eating disorder. Doctors can use it, for example, when they do not have all the information necessary to make a precise diagnosis of TCA.

5-4-Merycism

This is a regurgitation or re-chewing of food that can last for hours. These are chewed again, ruminated, then generally swallowed, in the absence of nausea or feeling of disgust. This practice, which “replaces” adapted food, aims to alleviate the frustration of hunger, and occurs after a meal.

Merycism is an eating disorder linked to the notion of pleasure. Indeed, through this voluntary recovery of food, the person relives, unconsciously or not, the satisfaction they experienced when they consumed them. Merycism is often associated with anorexia nervosa.

5-5- Nocturnal hyperphagia

This is uncontrolled, excessive food intake during the night. The individual wakes up to eat copiously. He will thus eat quickly, compulsively, without being able to curb this urge.

This eating behavior can occur in a state of half-sleep, the person is not always conscious of it. The next day, she wakes up with a rather vague memory of what she consumed during the night. The diagnosis of nocturnal hyperphagia is made when this eating behavior occurs more than twice a week, for at least six months.

5-6-Potomania

Potomania is an eating disorder which is defined by an irrepressible need to drink large quantities, mainly water (polydipsia) or alcohol (dipsomania). People with potomania can drink up to 10 liters per day or more.

This eating disorder is part of a desire to purge, purify, and cleanse oneself. It may also aim to fill the stomach as much as possible and be associated with

anorexia nervosa. In this case, drinking in large quantities serves to support the feeling of hunger.

6-What are the symptoms of an eating disorder?

The challenge is early detection, to avoid complications and progression towards a chronic form of the disease. Certain symptoms and behaviors can alert:

• Eating behaviors: Avoidance of shared meals, systematic rejection of certain rich foods, choice of low-fat foods, control of food weight, intervention in shopping or meals, use of excuses to avoid meals, periods of fasting , rushing to the toilet after meals…

• Weight: Abnormal weight loss during growth periods or rapid and excessive loss in the event of initial overweight, significant weight gain, etc.

• Concerns related to the physical: Recurring comments about physical appearance, excessive exercise, distortion of body image, self-esteem based on body image. Sometimes, these concerns precede or accompany a "get back in control" academically or athletically.

• Mood changes: Isolation and withdrawal, anxiety, pessimism, worthlessness, depression, etc.

These behaviors are generally hidden and denial of the disorder by people who suffer from it is very common, which represents a major obstacle to treatment.

7. Physical Activity and Health: An Essential Element

Physical activity refers to any form of bodily movement produced by skeletal muscles that results in energy expenditure. The importance of physical exercise for health is well documented, not only for its role in weight management, but also for its impact on mental health and well-being.

7.1. The Benefits of Physical Activity

Regular physical activity has notable health benefits, including:

- Prevention of obesity: Physical exercise is essential to burn excess calories and maintain optimal body weight.

- Reducing the risk of cardiovascular disease: Physical activity helps regulate blood pressure, reduce cholesterol and improve blood circulation, thereby reducing the risk of heart disease.

- Improved mental health: Exercise releases endorphins, chemicals that improve mood and reduce stress, anxiety and depression.

- Reducing the risk of type 2 diabetes: Physical activity promotes the absorption of glucose by the muscles, thus reducing blood sugar levels.

7.2. Physical Activity Recommendations

To maintain good health, health authorities recommend at least 150 minutes of moderate physical activity per week, or 75 minutes of vigorous activity. This may include:

- Brisk walking: An activity accessible to all, which can be practiced daily.

- Swimming: A complete and gentle exercise for the body.

- Muscle strengthening activities: Such as yoga, weight training, or Pilates, which help maintain good muscle mass and prevent age-related bone loss.

7.3. Influential Factors in the Practice of Physical Activity

Physical activity behaviors are influenced by various factors:

- The environment: A secure environment with suitable infrastructure (parks, cycle paths) can encourage the practice of physical activities.

- Social support: Practicing physical activity in a group can make exercise more enjoyable and increase motivation.

- Lifestyle and personal habits: A sedentary lifestyle, a stressful lifestyle or a lack of time can limit engagement in physical exercise.

8. Interaction between physical devices and activities

A beautiful santé cannot be maintained by an equipped approche at the home and physical activity. There are many complex interconnected elements to influence the global Sanctuary and its individual sectors.

8.1. One Alimentation Adaptée to the Activity Physique

People and people with intense physical activity can increase their alimentation to optimize their performance and improve their performance. An equipped diet, rich in macronutrients (proteins, glucides and graisses), as well as micronutriments (vitamins and minerals), soothing the recovery, endurance and repair of muscular tissues. Moreover, one good hydration is crucial, especially in the prolonging activities of the physiques.

8.2. Impact of physical activity on metabolism

The physical exercise affects the health metabolism. It increases the energy consumption, eliminates the mass of grass and favors the equipment of the metabolism of glucides and graisses. In consequence, the physical activity helps to maintain a healthy body composition and improve the body's capacity to treat the nutrients.

9. Challenges and Strategies to Encourage a Healthy Lifestyle

Despite evidence on the benefits of healthy eating behaviors and physical activity, many people continue to follow lifestyle habits that are harmful to their health. The challenges are multiple, ranging from access to healthy foods, increasing sedentary lifestyles due to changing lifestyles, and the influence of the food industries and advertising.

9.1. Obstacles to a Healthy Lifestyle

- Lack of time: Work and social demands can leave little room for physical exercise or preparing healthy meals.

- Limited access to healthy foods: In some regions, healthy food products may be expensive or difficult to access.

- Socio-economic influences: Dietary behaviors and physical activity levels are often influenced by economic, social and cultural factors.

9.2. Strategies to Promote Healthy Behaviors

There are various strategies to encourage healthier eating behaviors and increased physical activity:

- Health education: Raise awareness among the population of the benefits of a balanced diet and physical exercise.

- Favorable public policies: Establish infrastructure that facilitates physical activity, such as accessible parks, cycle paths and sports facilities.

- Community and social support: Create supportive environments where people feel encouraged to adopt an active and healthy lifestyle.

Conclusion

Eating behaviors and physical activity are two essential elements of a healthy lifestyle. Their impact on physical and mental health is profound and well documented. A balanced diet, combined with regular physical activity, is fundamental to preventing many chronic diseases, improving quality of life and promoting general well-being. By overcoming the challenges of adopting these behaviors, individuals can live longer, healthier, and with a better quality of life. It is therefore crucial to continue to promote these behaviors on an individual and collective level.

References

1. Blundell J.E. The Control of Appetite: Basic Concepts and Practical Implications. Schweiz. Med. Wochenschr. 1999.
2. Bond M.J., McDowell A.J., Wilkinson J.Y. The Measurement of Dietary Restraint, Disinhibition and Hunger: An Examination of the Factor Structure of the Three Factor Eating Questionnaire (TFEQ) Int. J. Obes. Relat. Metab. Disord. 2001.
3. Chaput J.P., Tremblay A. Obesity and Physical Inactivity: The Relevance of Reconsidering the Notion of Sedentariness. Obes. Facts. 2009.
4. De Castro J.M. How Can Eating Behavior Be Regulated in the Complex Environments of Free-Living Humans? Neurosci. Biobehav. Rev. 1996.
5. Distefano G, Standley RA, Zhang X, et al. Physical activity unveils the relationship between mitochondrial energetics, muscle quality, and physical function in older adults. J Cachexia Sarcopenia Muscle. 2018.
6. Gonzalez-Freire M, de Cabo R, Bernier M, et al. Reconsidering the role of mitochondria in aging. J Gerontol A Biol Sci Med Sci. 2015.

7. Martins C., Morgan L., Truby H. A Review of the Effects of Exercise on Appetite Regulation: An Obesity Perspective. Int. J. Obes. 2008.
8. Nair KS. Aging muscle. Am J Clin Nutr. 2005;81:953–963.
9. Nunnari J, Suomalainen A. Mitochondria: In sickness and in health. Cell. 2012.
10. Short KR, Bigelow ML, Kahl J, et al. Decline in skeletal muscle mitochondrial function with aging in humans. Proc Natl Acad Sci USA. 2005.