

Promotion of healthy nutrition of seafarers

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ABSTRACT

Nutrition disorders arise from various interacting factors: cultural, environmental, genetic, physiological, and psychological. Excessive consumption of highly processed food, sugar, salt, alcohol, and saturated fats is a problem nowadays, and consumption of fish, vegetables, and fruit is insufficient. Overeating and an unbalanced diet are often accompanied by stress and a lack of physical activity. This is intensified by easy access to “comfort food”, “fast food”, and “junk food”. The number of people suffering from overweight and obesity, so-called diseases of civilization, is increasing. Not only is being overweight a risk factor for the development many other metabolic diseases, but it also significantly worsens the quality of life. This also concerns people working at sea. Obesity is favoured by emotional eating disorders (EED), uncontrolled/compulsive eating – binge eating disorders (BED), and night eating disorders (NED). Most frequently, eating is a reaction to stress or boredom. It alleviates tension and improves the mood, also of seafarers.

Key words: eating disorders, nutrition standards, overweight/obesity, promotion of healthy nutrition

EATING DISORDERS AND THEIR BACKGROUND

In the 21st century, the youth, the body, and a healthy life style are glorified. Mass media play a significant role in promoting such a pattern by endorsing the opinion that only a slim figure and youthful looks are a guarantee of success. In this paper, we discuss the significance of factors favouring eating disturbances. Most of them have a psycho-social background, being a reaction to difficult problems of everyday life. Regrettably, they display a growing tendency, as suggested by authors dealing with eating disorders.

Although eating disorders are caused by non-physiological (not reasonable) diets, the motives to go on such diets may sometimes be rational [1]:

- a will to maintain good health by eating only “healthy food” may lead to orthorexia;
- striving to keep a slim, trendy figure by following restrictive diets may lead to anorexia or bigorexia;

- the quest for keeping youthful looks may lead to ageorexia.

Elimination of negative emotions or mood improvement may cause such disorders as bulimia, compulsive eating, night eating, or emotional eating. As demonstrated in numerous reports, the occurrence of eating disorders is affected by the following interacting factors: cultural, environmental, genetic, physiological, and psychological [2]. Eating disorders are inseparably linked with internal conflicts. Eating is frequently a form of managing problems of a psychic nature. The issues underlying such disorders are: emotional problems, a need to determine one's identity, negative self-esteem, sexual disorders, etc. [3].

WHAT IS DIET?

Diet is a nutrition system adjusting the amount and quality of food to individual needs of the organism (age, gender, place of inhabitation, vital and occupational acti-

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vity). A correct diet is a proper way of nutrition. It should be balanced and provide the organism with all components ensuring its normal functioning. Improper diets may lead to dysfunctions and diseases. A unified diet for people working at sea does not exist. Largely, it depends on environmental and climatic factors, shift work systems, the amount of energy expenditure at work, the financial capabilities of the employer, and the imagination of the people preparing the meals.

There is a wide range of diet types. The most well-known and popular are:

- basic diet (light);
 - high-protein/low-protein;
 - low-calorie;
 - frugal diet;
 - low-carbohydrate;
 - low-fat;
- diet with modifications, e.g. 100 calories, Mediterranean, Copenhagen diet.

EATING DISORDERS LEADING TO OBESITY

Although eating disorders are more typical in wealthy societies, overweight and obesity have also become problems in poor countries. Nowadays, nutrition is distinguished by excessive consumption of food in general, especially highly processed foods, sugar, salt, alcohol, saturated fats, and cholesterol, with an insufficient share of fish, vegetables, and fruit. Overconsumption and an unbalanced diet are frequently accompanied by stress and a lack of physical activity. Civilization development, undoubtedly embracing comfortable food, offers the possibility for fast preparation of meals, which are not always wholesome, containing a lot of fats and monosacharides and not enough vitamins. The problem is intensified by easy access to fast food and junk food (Figure 1).

Obesity is treated as a disease of civilization. Being a risk factor of many other metabolic diseases, it significantly worsens the quality of life. Night eating syndromes, as well as emotional and compulsive eating, are the kinds of disorders which most often accompany obesity. As suggested by Stunkard, the studies on disorders such as night eating and uncontrolled eating may contribute to the understanding of the phenomenon of obesity [4].

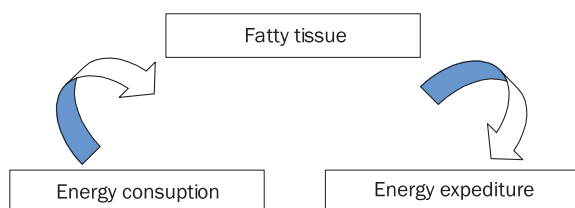


Figure 1. Unbalanced energy – the basic cause of obesity

Overweight/obesity is an essential risk factor in the development of diseases such as:

- sudden cardiac arrest;
- arterial hypertension;
- diabetes;
- arteriosclerosis;
- large intestine cancer;
- sleep apnea syndrome;
- thromboembolytic disease.

Among the psychological aspects of overweight and obesity one can distinguish: stress, psychic tension, frustration, depression, fear, low self-esteem, social isolation, shame, sense of guilt, feeling of harm, lack of control, trained helplessness, lack of assertiveness, and sexual disorders.

OBESITY AND OVERWEIGHT IN THE MARITIME WORK ENVIRONMENT

Obesity among seafarers is favoured by:

- compulsive eating (BED)
- night eating syndrome (NED)
- emotional eating (EED)

Uncontrolled eating (BED, binge eating disorder)

is also known as compulsive eating. People with such disorders eat until physically uncomfortable. Compulsive eating with symptoms such as self-induced vomiting or misuse of laxatives has been termed “bulimia nervosa” [5] (Figure 2).

Eating as a “tranquillizer”:

- compulsive eating is habitual eating with some features of automatism;
- the normal mechanism of hunger and satiation becomes disturbed;
- the feeling of hunger is provoked by the situation (stress, movies, ship) and not by actual deficiency of nutrients; serves to reduce psychological tension;
- after the meal – relaxation, calming down, but also a sense of guilt.

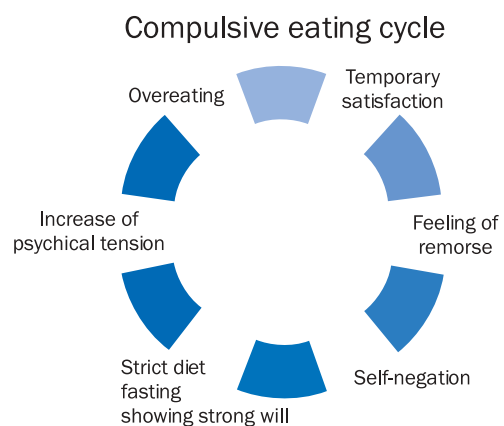


Figure 2. Vicious cycle of compulsive eating (source: Jezierska-Kozburuk M. Obesity therapy aspects, unpublished)

Night Eating Disorder (NED) is related to stress, sleep, and mood disorders. Its characteristic features are:

- morning anorexia (lack of appetite);
- excessive eating in the evening – over 50% of total daily calorie demand after 7 p.m.;
- insomnia;
- emotional disorders [6, 7].

The NED intensifies among obese people, especially during stress, whereas after its disappearance it shows a tendency to decline [8]. Although having snacks in the evening hours, very common on ships, is not a good habit, it is not equivalent to night eating syndrome [7].

Emotional Eating Disorder (EED) occurs as a reaction to stress or boredom. The food is used to alleviate tension or to improve the mood. Some people react to all emotions, negative in particular, with suppressed appetite and lower food consumption, and some, in identical circumstances, have a larger appetite [9].

Studies on the relation between the reasons for eating and selected emotional states have demonstrated that anger, joy, fear, and sadness have an impact on the causes of eating [10]. Higher food consumption is observed during such emotional states as boredom, depression, and fatigue, whereas a lower food intake accompanies pain and tension [11].

In the evaluation of the impact of emotional states on food preferences, a stronger tendency to eat healthy food was noted for positive emotions. Boredom is an emotional condition in which quantitative consumption definitely prevailed compared to the remaining states. In negative emotional states sweets, alcohol, and chips, i.e. junk food, were preferred [12, 13], thus, according to Lyman [14], reflecting the so-called body wisdom. Studies on the effect of gender and age on food preferences improving the emotional state (comfort food) have shown that men consider dinner meals (steak, soup), while women sweet snacks (ice cream, chocolate) as comfort food. In addition, young people, contrary to older, preferred sweet snacks [15].

TREATMENT OF EATING DISORDERS

Treatment of eating disorders among people working at sea is aimed at:

- lowering body weight either to within proper BMI limits (19–24.9) or a weight possible to achieve for a given obese person;
- identifying the disorder and finding its reason;
- proper nutrition education and debunking the myths about wonder diets;
- help in overcoming personal problems which favour the existing eating disorders;
- motivating to exclude potentially risky behaviours;
- acquiring the ability to manage stress on the ship and on land;

- helping to change lifestyle – modification of nutrition patterns of seafarers.

For efficient management of eating disorders, the following, Berger's rules, should be applied:

- add variety to meals;
- moderate eating and drinking;
- regular eating;
- take up sports;
- avoid stimulants;
- keep smiling.

Positive results in treating eating disorders among people working at sea are possible thanks to cooperation between dieticians, psychologists and, in some cases, psychiatrists [14].

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