

ROLE OF NUTRITION IN CONTROLLING EMOTIONS

Dr. P. KUMARAVELU

Associate Professor, Department of Physical Education, Tamilnadu Physical Education and Sports University, Chennai, Tamilnadu, India.

Abstract

Our emotions are brought into play by how we react to stress. Environmental stress, coming from outside of us (like severe heat or cold, extreme noise, toxins, pollutants and toxic relationships) can be a primary cause of emotional disorders like stress and emotional breakdown. Which is commonly observed in some sports people? The goal with environmental stress because we can't always control it is to prepare for it and learn to practice a positive response (conditioned response) instead of a non-thinking reaction (like smashing or throwing away things in hand). It is much better to think about what we can do before the stress happens. For instance we can make an agreement with a person that is disturbing us, or even leave that environment and be at peace. Proper nutrition can help you think better thoughts because they influence your brain chemistry and hormone release. The hormones and neurotransmitters are meant to serve and protect us, but when left unchecked it can lead to emotional eating because of these hormones being constantly elevated. There are certain foods that can also trigger a habit of emotional eating. These foods hijack our normal hormone production and make eating a subconscious habit instead.

Keywords: Emotional, Neurotransmitters, hormones, emotional eating

Introduction

The increased stress of competitions can cause athletes to react both physically and mentally in a manner that can negatively affect their performance abilities. They may become tense, their heart rates race, they break into a cold sweat, they worry about the outcome of the competition, they find it hard to concentrate on the task in hand. This has led coaches to take an increasing interest in the field of sport psychology and in particular in the area of competitive anxiety. That interest has focused on techniques that athletes can use in the competitive situation to maintain control and optimise their performance. Once learned, these techniques allow the athlete to relax and to focus his/her attention in a positive manner on the task of preparing for and participating in competition. Psychology is another weapon in the athlete's armoury in gaining the winning edge.

The 4c's

Concentration, confidence, control and commitment (the 4CS) are generally considered the main mental qualities that are important for successful performance in most sports.

Concentration-ability to maintain focus

Confidence-believe in one's abilities

Control-ability to maintain emotional control regardless of distraction

Commitment- ability to continue working to agreed goals

The techniques of relaxation, centering and mental imagery can assist an athlete to achieve the 4C's

Concentration

This is the mental quality to focus on the task in hand. If the athlete lacks concentration then their athletic abilities will not be effectively or efficiently applied to the task. Research has identified the following types of attention focus:

Broad Narrow continuum-the athlete focuses on a large or small number of stimuli.

Internal External continuum-the athlete focuses on internal stimuli (feelings) or external stimuli(ball)

The demand for concentration varies with the sport:

Sustained concentration distance running, cycling, tennis, squash Short bursts of concentration-cricket, golf, shooting, athletic field events Intense concentration-sprinting events, bobsleigh, skiing

Common distractions are: anxiety, mistakes, fatigue, weather, public announcements, coach,manager, opponent, thoughts etc.

Strategies to improve concentration are very personal. One way to maintain focus is to set process goals for each session or competition. The athlete will have an overall goal for which the athlete will identify a number of process goals that help focus on specific aspects of the task. For each of these goals the athlete can use a trigger word (a word which instantly refocuses the athlete's concentration to the goal) e.g. sprinting technique requires the athlete to focus on being tall, relaxed, smooth and to drive with the elbows-trigger word could be "technique

Athletes will develop a routine for competition that may include the night before, the morning, pre competition, competition and post competition routines. If these routines are appropriately structured then they can prove a useful aid to concentration.

Confidence

Confidence results from the comparison an athlete makes between the goal and their ability. The athlete will have self-confidence if they believe they can achieve their goal. (Comes back to a quote of mine-"You only achieve what you believe").

When an athlete has self confidence they will tend to: persevere even when things are not going to plan, show enthusiasm, be positive in their approach and take their share of the responsibility in success and fail.

To improve their self confidence, an athlete can use mental imagery to: Visualize previous good performance to remind them of the look and feel, Imagine various scenarios and how they will cope with them and positive response (conditioned response) instead of a non-thinking reaction (like smashing a boom boor cell phone that is always ringing). It is much better to think about what we can do before the stressor happens. For instance we can have a set of earplugs handy or make an agreement with a person who is disturbing us, or even leave that environment and be at peace.

The subject of nutrition is complicated and not always easy to put into practice. But the more you learn about what you eat and how it affects your energy and mood, the better you can feel.

Nutrition and Exercise also play a big part in the emotional intelligence equation. Certain food like salmon, flax seed and walnuts have a high level of omega-3 fatty acids and help create more of the positive happiness related hormones like serotonin. Physical exercise, particularly when done in a nature setting will help your body secrete growth hormone which will help you

feel good naturally. When you are feeling your best, your emotions serve you well, and other people (plants and animals too) are attracted to your energy and you can easily form positive harmonious relationships. Being sedentary (not exercising), using poor posture, not getting enough sleep (limited growth hormone production and eating junk foods).

Emotions can be the catalyst for disease. The effects of the mind on the body can be very powerful. Fortunately, nutrition can be a big part of the cure. This area is called psychonutrition, since what you eat can alter neurotransmitter production in your brain which controls your emotions.

Since the consumption of omega-3 fatty acids from fish and other sources has declined in most populations, the incidence of major depression has increased (Hibbeln, 1998). Several mechanisms of action may explain how eicosapentaenoic acid (EPA) which the body converts into docosahexaenoic and (DHA), the two omega-3 fatty acids found in fish oil, elicit antidepressant effects in humans. Most of the proposed mechanisms involve neurotransmitters and, of course, some have more supporting data than others. For example, antidepressant effects may be due to EPA being converted into prostaglandins, leukotrienes, and other chemicals the brain needs. Other theories state that EPA and DHA affect signal transduction in brain cells by activating peroxisomal proliferator-activated receptors (PPARs), inhibiting G-proteins and protein kinase C, as well as calcium, sodium, and potassium ion channels. No matter which mechanism(s) prove to be true, epidemiological data and clinical studies already show that omega-3 fatty acids can effectively treat depression (Adams et al, 1996). Consuming omega-3 fatty acid dietary supplements that contain 1.5 to 2 g of EPA per day have been shown to stimulate mood elevation in depressed patients. However, doses of omega-3 higher than 3 g do not present better effects than placebos and may not be suitable for some patients, such as those taking anti-dumping drugs (Grubb, 1990).

In addition to omega-3 fatty acids, vitamin B (eg, folate), and magnesium deficiencies have been linked to depression (Young 2007-Bell et al, 1991 Eby&Eby,2006). Randomized, controlled trials that involve folate and 812 suggest that patients treated with 0.8 mg of folic acid/day or 0.4 mg of vitamin 812/day will exhibit decreased depression symptoms (Young 2007). In addition, the results of several case studies where patients were treated with 125 to 300 mg of magnesium (as glycinate or taurinate! with each meal and at bedtime led to rapid recovery from major depression in less than seven days for most of the patients (Eby&Eby,2006).

If your goal is health and emotional intelligence, try to avoid or limit the following from your diet

- * Genetically Engineered Foods
- * High Fructose Corn Syrup products
- * Non-organic foods which are full of pesticides and toxin
- * Toothpaste with fluoride in it
- * Drinking unpurified water (chlorine and fluoride plus pharmaceutical products)
- * Meat treated with hormones and produced inhumanely
- * Milk and cheese treated with the RBST hormone
- * Nitrites in cured foods

Consider adding the following to your diet instead

- Green Vegetables (organic and local if possible)
- Fresh Local Fruits (organic and local if possible)
- • Extra Virgin Olive Oil

- Coconut Oil and Water
- Almonds and Walnuts
- - Wild Salmon and Oily Fish
- Whole Grains
- Superfoods (wheat grass, spirulina, blue green algae, gogi, dark chocolate, red wine, medicinal mushrooms, etc.)

The connection between distinct biochemical imbalances and specific emotions. For example:

By simply changing your diet, you can control, and then cure the nutritional causes of these emotional problems

- Too much calcium causes depression.
- Too little calcium causes anxiety
- Too much iron causes volcanic hostility.
- Too little Iron causes learning disabilities.
- Too little magnesium causes attention deficit syndrome.
- Too much copper causes learning disabilities.
- Too little copper causes manic depression.
- . Too much manganese causes compulsive behavior
- . Too much mercury causes irritability.
- Too much aluminum (found in most deodorants) causes attention deficit syndrome and may cause Alzheimer's
- Too much lead causes aggression Too much sodium causes hostility.
- Too little sodium causes apathy.
- Too little vitamin C causes depression.

Food for Thought

Emotional eating is the practice of consuming large quantities of food-usually comfort or junk foods-in response to feelings instead of hunger. Experts estimate that 75% of overeating is ca by emotions. Many of us learn that food can bring comfort, at least in the short-term. As a result, often turn to food to heal emotional problems. Eating becomes a habit preventing us from learning skills that can effectively resolve our emotional distress.Eating only when you're hungry makes sense on an intellectual level but, emotionally, food ofte represents more than just a mixture of inanimate ingredients. For many of us, food is a reward for doing something good, a comfort when we're feeling bad or even something to do when we're bored. People often turn to food when they feel:

- Stress
- Depression
- Anger
- Boredom
- Loneliness
- Frustration
- Anxiety

For many of us, reaching for our favorite foods is an automatic response when we don't feel good about ourselves. Changing that automatic response isn't easy but, if you want to learn

how to control your calories to lose weight or get healthy, it's worth the time and effort to figure out what's behind your emotional eating habits.

Conclusion

Once you start getting a deeper understanding of your eating habits, you can work on ways to cope with your feelings other than reaching for food. Just a few ideas include:

Alternatives to Eating

Exercise. It helps relieve stress and anxiety, generates energy and it makes you feel good about yourself.

Get in touch. Talking to a friend or an online support group may give you the support you need to avoid reaching for.

Drink water. We often mistake thirst for hunger and filling up with water may help you avoid extra calories.

Take a walk. Walking is good for your body, but it's always a great way to practice moving meditation and work through problems.

Listen to your favorite song Music can be a great way to soothe yourself when you're stressed, bored or tired.

Drink some tea. One way to curb unexpected cravings is to drink herbal tea. It fills me up and adding a little honey often satisfies my sweet tooth .

Try yoga. Relaxing your body and mind is a great way to take a step back from big emotions before you do something you might regret.

Make your own list of ideas and work on trying at least one new one each week as you start dealing with your emotional eating habits. Changing bad habits, especially bad eating habits, takes time, patience and diligence but it's worth it to get control of your eating and learn how to handle your emotions without food.

References

1. Adams PB, Lawson S, Sanigorski A, Sinclair AJ: Arachidonic acid to elcosapentaenoic acid ratio in blood correlates positively with clinical symptoms of depression. *Lipids* 1996, 31(Suppl):\$157-5161.
2. Bell IR, Edman JS, Morrow FD, Marby DW, Mirages S, Perrone G, Kayne HL, Cole JO: B complex vitamin patterns in geriatric and young adult inpatients with major depression. *J Am Geriatr Soc* 1991, Eby GA, Eby KL: Rapid recovery from major depression using magnesium treatment. *Med Hypotheses*, 2006, 67(2):362-370.
3. Grubb BP: Hypervitaminosis A following long-term use of high-dose fish oil supplements. *Chest* 1990, 97(5):1260. Hibbeln JR Fish consumption and major depression. *The Lancet* 1998, 351(9110):1213 Shaheen E Lakhan' and Karen F Vieira, Nutritional therapies for mental disorders *Nutrition Journal* 2008, 7:2
4. www.aedweb.org-Academy for Eating Disorders
5. www.anad.org-National Association of Anorexia Nervosa and Associated Disorders
6. Young SN: Folate and depression-a neglected problem. *J Psychiatry Neurosci* 2007, 32(2):80-82.