

97 - BENEFITS OF PHYSICAL ACTIVITY IN COPING WITH STRESS

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Stress has been considered the "disease of the century", deriving from the sum of intrinsic and extrinsic factors to the individual. If these factors are not controlled since its inception, may cause a number of health complications. (NUNOMURA, 2004)

It has been suggested that stress is a term used to describe the physiological and behavioral reactions that occur when the body's balance is disturbed. Signs and symptoms of stress are varied and, as noted Timby (2007), the most common are:

- Physical: rapid heart rate, rapid breathing, increased blood pressure, difficulty sleeping or excessive sleeping, loss of appetite or excessive eating, Muscle tension, inactivity or hyperactivity, dry mouth, constipation or diarrhea, lack of sexual interest.

- Emotional: irritability, outbursts of anger, hypercritical, Verbal Abuse, Shyness, Depression.

- Cognitive: Attention and concentration impaired; Forgetting; Concern; Chamber poor.

Besides knowing the common signs and symptoms of stress, it is important that health professionals and others who deal about this issue, including the aesthetics, also know the nature of stress, because the physical beauty also depends on good mental health.

Although individuals have the ability to adapt second Timby (2007), not everyone responds exactly the same way to a similar stressor. The differences may vary depending on the intensity of the stressor, the number of stressors, the duration of the stressor, physical condition, life experiences, coping strategies, social support, personal beliefs, attitudes, values .

Therefore, due to individual differences, the results may be the adjustment or maladjustment, depending on the individual's reaction to stress. In response to the stress people can develop the Canadian Medical Has Selye called the General Adaptation Syndrome.

The General Adaptation Syndrome (GAS) refers to the collective physiological processes that occur in response to a stressor. Thus, the physical response of the body is always the same and it gives as the alarm stage, resistance, and in some cases, the exhaustion.

In the stage of alarm and resistance, there is the maintenance of homeostasis. Thus, short answers to stressors result in adaptive consequences and restore balance. If stressors persist in frequency or intensity, the resistance can disturb the person that can move to a more severe stage of stress. So, when the resistance is prolonged, the process tends to become pathological, leading to stress diseases that can even lead to death.

Some of the major diseases associated with stress can be highlighted: hypertension, headaches, gastritis, ulcerative colitis, asthma, rheumatoid arthritis, skin diseases, hyper/hypoinsulinism, depressive disorders, cancer, back pain, irritable bowel syndrome, allergies, diseases related to anxiety, infertility, impotence, bruxism (teeth grinding).

People under stress may use defense mechanisms are unconscious tactics used to protect the psyche temporarily, as observed Timby (2007), these techniques handle the reality is a kind of psychological first aid. They allow the emotional impact of a stressful situation, in other words, psychological adaptation occurs through the use of unconscious defense mechanisms. In the table below some of these mechanisms are described, in order to better understanding of clients:

Table 1: The defense mechanisms of the unconscious in a stressful situations:

Explanation	Mechanism	Example
1 - denial	1 - reject information	1 - refuse to believe in something.
2 - rationalization	2 - relieve yourself of personal responsibility, assigning responsibility to another person or thing	2 - the failure to assign a test of how it was prepared
3 - displacement	3 - talk with angry about something or someone less probability to retaliate	3 - kick the wastebasket after being reprimanded by the boss
4 - regression	4 - act in a manner characteristic of someone younger	4 - want to be breastfed as a baby
5 - projection	5 - give what is unacceptable in themselves to another person	5 - to accuse a person of another race to be the object of prejudice
6 - somatization	6 - to express emotional distress through physical illness	6 - Have diarrhea, which is in convenient excuse for missing work
7 - compensation	7 - excel in something to offset some weakness in other	7 - to become a motivational speaker, though physically disabled people.

It is important to emphasize the healthy use of defense mechanisms allowing people to avoid the momentary emotional impact of a stressful situation, coming to finally deal with reality and grow in the emotional sphere. The use of unhealthy defense mechanisms tend to distort reality so that the individual fails to see or correct their weaknesses.

It is vital that health professionals and other related areas, including aesthetics, meet at least four methods of prevention to reduce or eliminate a stress response, including:

1 - The use of techniques to reduce stress, for example, offering adequate explanations in comprehensive language.

2 - The promoting of the release of endorphins: For example, activities that would help them are the exercise especially aerobic exercise, massage and laughter, as the endorphins produce effects similar to drugs like opium and morphine. In addition to reducing the sensation of pain, these chemicals promote a sense of pleasure, tranquility and welfare.

3 - The implementation of interventions to control stress, such as:

a) Modeling - Provide the ability to learn an adaptive response, exposing a person to someone who demonstrates a positive attitude or behavior.

b) Progressive Relaxation - Relieves tense muscles, clearing the mind of stressful thoughts and focusing on the conscious relaxation of specific muscle groups.

c) Imagery - Use the mind to see positive experiences, pleasant and calming.

d) Biofeedback - Changes the functions of the autonomic nervous system, responding to physiological data evidenced electronically.

e) Prayer (belief and faith) - Reduces the physiological activation, placing the trust of a person in a higher power.

f) Placebo effect - Changes a negative physiological response through the power of suggestion.

4 - The expression of sensory stimuli, as may occur in aromatherapy.

However, among these methods, physical activity is highlighted as beneficial to the prevention and combating stress scopes with the physical and mental health. Considering the current evidence of responses of healthy physical activity in the body, will be emphasized in this study have important benefits in their coping with stress.

METHODOLOGY

This is a literature review in order to describe about the stress and the benefits of physical activity as prevention and cope with this problem. The study is descriptive, bibliographical, seeking articles about the thematic on databases especially Scielo, and journals and other online sites that deal with specific about the topic, using the key words physical activity, exercise and stress. For an extension of the discussion, the search also considered the printed literature.

The practice of regular physical activity to combat stress

Stress is now considered a disease that affects many people regardless of their life cycle, particularly in adulthood, due to the wide family and work pressures and other factors, when the manifestation of stress is potentially greater. In view of this problem, several techniques have been used especially to relieve the symptoms of stress, among which stand out as regular physical activity (NUNOMURA, 2004).

There are currently in Brazil to increase the number of Brazilians who practice regular physical activity and the percent spent 14.9% in 2006 to 16.4% last year, in 2008. Despite this positive trend, it need to change the dietary patterns and physical activity of the population. Transforming these two basic habits in lifestyle could prevent, in Brazil, about 260 thousand deaths per year related to diseases such as cardiovascular diseases and cancers. (BRASIL, 2009 [1])

Physical activity is a key component to health, because it promotes better life with joy, wellbeing, and reflect in quality of life. To Rabacow (2006), there are many benefits provided by the practice of regular physical activity, promoting a healthier life and controlling the functional capabilities.

There is a very close relationship between health and physical activity, as well as between health and quality of life. Through physical activity, says Zimmerman (2000), can develop a highest quality of life, by deploying a change of habits and values in relation to the body and providing physical benefits, psychological and social, including preventing the development of chronic course with age, improving self-esteem and providing a more active life.

Block (2009) recommends physical activity to reduce the emotional stress and its deleterious effects on health. In his study shows that the emotional pressure may be more evil than you think. In addition to stress is associated with a large number of problems such as heart disease and increased risk of cancer, it is also linked to weight gain, especially when people already have the trend. This has been confirmed in research Psychosocial Stress and weight change among adults in the United States of 1,355 people between 25 and 74 years.

According to the study, when there is psychological stress, physiological stress may be also. It is possible that the emotional pressure stimulates a complex interaction between cortisol and ghrelin, a hormone responsible for increased appetite. At the same time, the low stress levels leptina, substance produced by the body that reduces hunger and stimulates energy expenditure at rest. The research points to the need to develop programs to reduce work stress, emphasizing the promotion of physical activity. (BLOCK, 2009)

The various benefits of regular physical exercise for health are evident in the body in all aspects. In addition to benefits on the cardiovascular system, musculoskeletal, regular physical activity influences mental health, providing greater regulation of substances related to the nervous system, improves blood flow to the brain, aids in capacity to deal with problems and stress, reduces anxiety and stress, helping to treat depression.

According to the Ministry of Health (Brasil, 2009[2]), the practice of physical activity is spreading throughout the world as a protective factor for health of individuals. Besides the known benefits such as improved blood circulation and increase the provision for daily activities, the highlights are also aspects of socialization and influence on the reduction of anxiety or stress, giving the physical activity the ability to promote the improved well-being of the individual practitioners.

Regular practice of physical exercise may be effective antidepressants and anxiolytics as well as protect the body from the harmful effects of stress on physical and mental health, emphasizes Salmon (2001).

Vieira (2009) points out that physical exercise as treatment for anxiety and depression is as effective as psychotherapy and pharmacological treatments, having the advantage of being healthier than economic. The aerobic exercise produces anxiety reduction with results similar to the strategies of meditation and relaxation.

As that people increase their fitness levels, they advance to a better quality of life fulfillment with social, mental, spiritual and work, overcoming stress and depression, says Mendes (2008), in addition to physical activity does constitute a strategy of positive health, a distraction in the midst of turbulent lifestyle.

Physical activities promote normal bodily changes, assisting in the recovery of self-esteem, confidence and affection, increasing socialization, encouraging improvement in social interactions of the individual in their family life and work. In addition to these benefits, physical activity interferes performance is improved intellectual, reasoning, speed of response, and social interaction.

Exercise leads the individual to greater social participation, resulting in a high level of welfare bio-pycho-physical, factors which contribute to improving the quality of life, as highlighted by Roeder (2003). Thus, exercise can be proposed as an alternative to prevent and reduce levels of anxiety and improve mood state of people with stress.

Vieira (2009) noted that the scores of the mood in a group of practitioners of physical humor had made during the intervention program, based on aqua-gymnastics, revealing that the negative feelings of tension, depression, anger, fatigue and confusion decreased and a positive force increased during the exercise program. Exercise is also associated with the opportunity to forget the daily problems for a period of time, to feel in control of the experience, to feel competent and effective.

In a comparative study of the stress level of 16 individuals after the regular practice of physical activities within 12 months, Nunomura (2004) showed that the result indicated significant improvement in symptoms that generate stress, suggesting the positive influence of regular physical activity alleviation of triggering the process of stress among adults.

The exercises also provide a calming effect on the analgesic and regular practitioner, who often receive a relaxing effect after exertion and can usually maintain a state of psychosocial equilibrium more stable in the face of threats from external environment. Tends to strengthen the self-concept, self-esteem, reduce anxiety, hostility and aggression. (VIEIRA, 2009)

The physical exercise associated with conventional treatment for depression produces significant improvement in women suffering from premenstrual tension. It is important to note that with the cessation of exercise, Vieira (2007) found that the effects of exercise on depressive symptoms disappeared, as shown by the assessment for six months.

Combat stress and maintain healthy habits contribute enough to mitigate the effects of premenstrual tension. The stress and anxieties of everyday life in general help to exacerbate the problem, warns the Ministry of Health (2009) [3]. It is also necessary that the woman is attentive to food and regular physical activity. Hiking and regular sports with duration of 30 minutes, and promote the welfare and health, improve blood flow, eliminates liquids and reduce stress.

Anyway, so planned and supervised the exercise tend to increase the quality of life of practitioner regular, increasing longevity, improving the level of energy, mood and health in general.

As a parameter for habitual physical activity, the World Health Organization considers "enough" to practice 30 minutes daily for at least five days a week of light activity or moderate or 20 minutes of vigorous activity on three or more the week. Walk, walk on a treadmill, weight training, aqua-gymnastics, general gymnastics, swimming, martial arts, cycling and volleyball are mild or moderate practices. The strong are running, treadmill running, aerobics, football, basketball and tennis. (MINISTRY OF HEALTH, 2009 [1]).

CONCLUSION

The stress has led many people to an imbalance of physical, mental and emotional function of the various ill effects that brings the body. As a strategy to promote health especially as it relates to preventing and coping with stress, physical activity confers undeniable benefits in physical, mental and emotional health, minimizing health risks and leveraging, among other vital functions, and finally, the quality of life of regular practitioners.

As professionals working in the health of customers, we have the aim of assisting the customer in winning for its homeostasis, that means, a relatively stable state of physiological equilibrium, because the relationship between mind and body has the potential to maintain health or cause disease.

REFERENCES

- BLOCK JP, HE Y, DING L, AYANIAN JZ. **Psychosocial Stress and Change in Weight Among US Adults. Am. J. Epidemiol.** 2009; 170: 181-192
- BRASIL. MINISTÉRIO DA SAÚDE. Mais pessoas praticam atividade física no país. 2009[1]. [internet] Acesso: outubro 2009. Disponível em: http://portal.saude.gov.br/portal/saude/Gestor/visualizar_texto.cfm?idtxt=31179
- Atividade Física. 2009[2]. [internet] Acesso: outubro 2009. Disponível em: http://portal.saude.gov.br/portal/saude/profissional/visualizar_texto.cfm?idtxt=32919
- Atividades físicas, alimentação saudável e medicamentos podem amenizar tensão pré-menstrual. 2009[3]. Acesso: outubro 2009. Disponível em: http://portal.saude.gov.br/portal/saude/visualizar_texto.cfm?idtxt=25212
- FREUD S. The Ego and the mechanisms of Defense. **Londres: Hogarth Press**, 1937.
- HARRISON L, SKINNER R. Relax for health. **Nursing Times**, Dezembro de 1992; 88: 46-47.
- HAWRANIK P. Preventing health problems after the age of 65. **Journal of gerontologic Nursing**, Novembro de 1991; 17: 20-25.
- HOLMES TH, RAHE RH. The social Readjust Rating Scale. **Journal of Psychosomatic Research**, Agosto de 1976; 11: 216.
- MENDES AM. Atividade física na promoção da saúde e qualidade de vida. **FIEP Bulletin - Vol 78 - Special Edition - Article II**. 2008.
- RABACOW FM. et al. Questionários de medidas de atividade física em idosos. **Revista Brasileira de Cineantropometria e Desempenho Humano**, Florianópolis, v. 8, n. 4. p. 99-106, 2006.
- ROEDER MA. **Atividade física, saúde mental e qualidade de vida**. Rio de Janeiro: Afiliada; 2003.
- SALMON P. Effects of physical exercise on anxiety, depression, and sensitivity to stress: a unifying theory. **Clin Psychol Review**. 2001;21(1):33-61.
- SELYE H. **The Stress of life**. Nova York: MCGraw-Hill, 1956.
- TIMBY, BK. **Conceitos e Habilidades Fundamentais no atendimento de enfermagem**. 8ed. – Porto Alegre: Artmed, 2007.
- VIEIRA JLL, PORCU M, BUZZO, VAS. A prática da hidroginástica como tratamento complementar para pacientes com transtorno de ansiedade. **J. bras. psiquiatr.** 2009, 58(1):8-16.
- VIEIRA JLL, PORCU M, ROCHA PGM. A prática de exercícios físicos regulares como terapia complementar ao tratamento de mulheres com depressão. **J. bras. psiquiatr.** [online]. 2007, 56(1):23-28.
- WEINBERGER R. Teaching the elderly stress reduction. **Journal of gerontological Nursing**, outubro de 1991; 17: 23-27.
- ZIMMERMAN, B. J. **Attaining Self-Regulation: a social cognitive perspective**. In Boekaerts M., Pintrich P., & Zeodmer M. (Eds.), **Handbook of Self-Regulation**. Academic Press, 2000.

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SUMMARY:

This is a literature review in order to describe about the stress and the benefits of physical activity as a strategy for preventing and dealing with this problem. Stress is now considered a disease that affects many people regardless of their life cycle, particularly in adulthood, usually on the basis of the wide family and work pressures and other aggravating today. The study is descriptive, bibliographical, seeking articles on thematic databases, online journals and other related sites, using the terms physical activity, exercise and stress. It follows that to prevent and cope with stress, physical activity confers undeniable benefits in physical, mental and emotional development of regular practitioners, minimizing health risks, increasing the body's functions and, ultimately, maximizing quality of life.

DESCRIPTORS: Exercise. Psychological Stress. Quality of Life

AVANTAGES DE L'ACTIVITÉ PHYSIQUE EN FAIRE FACE AU STRESS

SOMMAIRE:

Il s'agit d'une revue de la littérature afin de décrire le stress et les bienfaits de l'activité physique comme une stratégie pour prévenir et traiter ce problème. Le stress est désormais considérée comme une maladie qui touche beaucoup de personnes

indépendamment de leur cycle de vie, en particulier à l'âge adulte, généralement sur la base de la famille large et les pressions au travail et, aujourd'hui, aggravant l'autre. L'étude est descriptive, bibliographiques, à la recherche des articles sur les bases de données thématiques, revues en ligne et autres sites connexes, en utilisant les termes l'activité physique, l'exercice et le stress. Il s'ensuit que, pour prévenir et composer avec le stress, l'activité physique procure des avantages indéniables dans le développement physique, mental et affectif des pratiquants réguliers, en minimisant les risques de santé, accroître les fonctions de l'organisme et, à terme, de maximiser la qualité de vie.

DESCRIPTEURS: Exercice. Stress Psychologique. Qualité de Vie

BENEFICIOS DE LA ACTIVIDAD FÍSICA PARA SOBRELLEVAR EL ESTRÉS

RESUMEN:

Esta es una revisión de la literatura con el fin de describir sobre el estrés y los beneficios de la actividad física como una estrategia para prevenir y hacer frente a este problema. El estrés es considerado una enfermedad que afecta a muchas personas, independientemente de su ciclo de vida, sobre todo en la edad adulta, generalmente sobre la base de la familia de ancho y las presiones del trabajo y otros agravantes en la actualidad. El estudio es descriptivo, bibliográfico, la búsqueda de artículos en bases de datos temáticos, revistas en línea y otros sitios relacionados, utilizando los términos la actividad física, el ejercicio y el estrés. De ello se deduce que para prevenir y afrontar el estrés, la actividad física aporta grandes beneficios innegables en el desarrollo físico, mental y emocional de los practicantes regulares, minimizando los riesgos de salud, el aumento de las funciones del cuerpo y, en última instancia, aumentar al máximo la calidad de vida.

DESCRITORES: Ejercicio. El Estrés Psicológico. Calidad de Vida

BENEFÍCIOS DA ATIVIDADE FÍSICA NO ENFRENTAMENTO DO ESTRESSE

RESUMO:

Trata-se de uma revisão de literatura visando descrever acerca do estresse e os benefícios da atividade física como estratégia de prevenção e enfrentamento dessa problemática. O estresse é considerado atualmente uma patologia que atinge muitas pessoas, independentemente do ciclo de vida, em particular na fase adulta, geralmente em função das acentuadas responsabilidades familiares e pressões no trabalho além de outros agravantes da atualidade. O estudo é descritivo, do tipo bibliográfico, buscando-se dados referentes à temática em bases de dados, periódicos online e outros sites relacionados, utilizando-se os termos atividade física, exercício físico e estresse. Conclui-se que para a prevenção e enfrentamento do estresse, a atividade física confere inegáveis benefícios na saúde física, mental e emocional dos praticantes regulares, minimizando os riscos à saúde, potencializando as funções orgânicas e, enfim, maximizando a qualidade de vida.

DESCRITORES: Exercício Físico. Estresse Psicológico. Qualidade de Vida

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