PHYSICAL ACTIVITIES AND THEIR CHARACTERISTICS DURING PANDEMIC TIMES

Fabiana MARTINESCU-BĂDĂLAN

martinescu.fabiana@armyacademy.ro

“NICOLAE BĂLCESCU” LAND FORCES ACADEMY, SIBIU, ROMANIA

ABSTRACT

In this paper we wanted to present some aspects and characteristics observed in the specialized works and from the experience gained in performing physical activities during the COVID-19 pandemic. This period was a complicated one both in terms of physical distancing and emotionally. We no longer had the right to leave our houses, except to get what was strictly necessary, not to meet with family members or friends, cultural and sports activities were suspended, and all this caused an increasingly visible state of sedentary lifestyle. All the restrictions of this period had a negative effect mainly on the brain and the dynamics of the human body, and they are detailed in the following pages.

KEYWORDS:

Physical activities, guidelines, pandemic characteristics

1. Introduction

We have all been hearing the advice “Be active!” from the beginning of the pandemic. We have to admit that it is not a bad advice, at least the urge exists, but in fact things are completely different. The beginning of 2020 was the time when the COVID-19 pandemic broke out and all the things we knew to be normal changed.

We no longer had the right to leave our houses, except to get what was strictly necessary, not to meet with family members or friends, cultural and sports activities were suspended, and all this caused an increasingly visible state of sedentary lifestyle.

2. Physical activity

Generally speaking, physical activity has an indispensable characteristic, and it known as motor skills. Motor skills mean getting out of the state of rest. Ways in which individuals can be active include walking or cycling, movement games, dancing, activities you do at home such as gardening or cleaning, but also at work.

During this pandemic, these physical activities decreased significantly. There were categories of population from rural areas or those in urban areas who have a house with a garden or yard and the vast majority of the population living in blocks of flats and who were restricted from

leaving their homes. Apart from these aspects, there are also those related to mental and social stress, largely induced by social media and everyday realities. Thus, physical activities for many people have ceased to exist.

The World Health Organization recommends that adults take 30 minutes a day for physical activity and one hour for children.

Given the above, we want to show you the benefits of exercising:

IN CHILDREN

- supports growth
- supports balanced development
- academic success
- social integration

IN ADULTS

- decreased risk of depression
- decreased cognitive decline
- reduction of cardiovascular diseases
- maintaining an optimal tonus
- blood pressure control

IN THE ELDERLY

- decreases the risk of stroke
- increases mental and muscular balance and tonus
- improves sleep quality

(Source: Author)

Regular physical activity benefits both the body and the psyche and maintains a state of well-being. Exercising is that part of our lives when we feel that we can unleash ourselves, we feel in those moments that we are stronger, more energetic, more in control of ourselves and our actions.

It is no secret that when we do physical activity increases the level of serotonin in the body. Serotonin, or the

“happiness hormone”, is a neurotransmitter in the brain that helps make connections. The secret lies in the fact that this hormone secreted by the pineal gland in the brain is secreted only when physical activity is performed with pleasure and at certain intensity.

In addition to serotonin, there are other hormones that are released during physical activity, each having a role and a

place in the lives of individuals. Among these we mention endorphins, which are responsible for reducing the level of pain, dopamine which is closely related to the feeling of satisfaction at the end of the set of exercises or training.

People who exercise regularly enjoy not only a better physical condition, but also a positive mood. They feel more energetic during the day, sleep better at

night, concentrate more efficiently and feel more relaxed.

3. Characteristics of physical activity

Physical activity or motor skills are a “sine qua non” condition in maintaining a healthy lifestyle, along with proper nutrition and a positive attitude.

Physical activities can be divided as follows:

(Source: Author)

Exercising has several benefits for the human body that fold on several levels, namely psychological, physiological, social and educational.

- Physical activity gives you a positive attitude;
- Improves safety;
- Optimizes the response to anxiety and depression;
- It helps you have a better opinion of yourself;
- Prevents insomnia and helps you sleep better;
- Helps release tension and control stress.

PSYCHOLOGICAL

- Improves bone and functional health;
- Physical activity determines energy consumption being an essential method in weight control;
- Improves coordination, ability and responsiveness;
- It has a strong beneficial effect on cardiovascular activity.

PHYSIOLOGICAL

- Through physical activities we keep in constant competition with ourselves and others;
- It helps us to take on defeats;
- It makes us responsible by accepting the rules and regulations;
- It teaches us to channel our aggression, especially due to the fact that group activities require respect for each other;
- It gives us self-control;
- It teaches us to work in a team;
- It helps us maintain social relationships with other participants.

SOCIAL

- It has benefits in gaining a healthy and hygienic lifestyle;
- The little ones learn to follow the established rules;
- Provides greater confidence in adults and overcomes shyness;
- Helps in managing tense moments;
- They increase their ability to move;
- Physical activity helps bones and muscles to develop better;
- They explore their courage and are more efficient at school.

EDUCATIONAL

(Source: Author)

4. Characteristics of physical activities during the pandemic on individuals

On March 11, 2020, the World Health Organization declared the pandemic Coronavirus-2019 disease (COVID-19). Now, more than a year later, we can say that it is the biggest emergency situation globally, since the Second World War.

Most governments have taken drastic measures on human interaction, on travelling to and from home, on cultural, sports and educational activities. All these measures have hit the population hard, both in adults and in adolescents and children. Schools, restaurants, some shops, fitness centers, swimming pools were closed, and outdoor gatherings were no longer allowed. Everyone started working from home, the now well-known home-office, and teenagers and children were forced to take on online schooling. Among all these aspects of life, a very affected area was sports or physical activities. COVID-19 is the biggest challenge for contemporary, community and individual sport globally.

This is significant given the role and significance of exercising in the lives of individuals, families and communities globally. Sport is recognized in promoting positive social, emotional, cultural and economic results (Elliot, Drummond, Prichard, Eime, Drummond & Mason, 2021).

As a result of the distance measures imposed by the government, the children did not have access to physical activities at school, such as physical education and school sports, walking or cycling to and from school, recreation/leisure activities. State and private sports schools and sports clubs canceled all training and games throughout the summer of 2020. Fitness centers, recovery centers, dance and wrestling classes, aerobic gyms and swimming pools were also closed and activities were canceled. Outdoor playgrounds for children, hiking or biking trails, walks in parks or public gardens were also prohibited.

“Although these social distancing measures were necessary to slow the spread of COVID-19, they limited children’s ability to engage in physical activity to maintain health and prevent disease” (Dunton, Do, & Wang, 2020). Our intention is “to call attention to the pandemic’s longer-term effect on children’s health: COVID-19, via these school closures, may exacerbate the epidemic of childhood obesity and increase disparities in obesity risk” (Rundle, Park, Herbstman, Kinsey & Wang, 2020).

“One speculation is that death and other negative events during the pandemic may lead to personal stress and anxiety, thus may induce consumption of alcohol and sugar-rich, energy-dense food” (Pellegrini, Ponzo, Rosato, Scumaci, Goitre & Benso, 2020). “Physical inactivity has also been reported to contribute to a sedentary lifestyle with more snacks between meals or late at night” (Werneck, Silva, Malta, Gomes, Souza-Junior & Azevedo, 2020).

“Because of the social distancing measures, there was a significant decrease in the frequency of dining out during the COVID-19 pandemic. During the COVID-19 pandemic there was a significant drop in the frequency of going out for work” (Elliot, Drummond, Prichard, Eime, Drummond & Mason, 2021).

“The effects of most factors on lifestyle behavior have been inconsistent among studies. Meanwhile, most empirical studies were conducted online, which may oversample younger individuals while neglecting the poor and elderly population with limited access to the internet” (Elliot, Drummond, Prichard, Eime, Drummond & Mason, 2021). The sedentary behavior like sitting / lying was significantly increased. In contrast, the frequencies of walking, moderate-intensive sports, and high-intensive sports were found to be significantly reduced (Elliot, Drummond, Prichard, Eime, Drummond & Mason, 2021).

“The cancellation of youth sports and activity classes have inspired programs, coaches, independent fitness professionals, and other entities to offer online streaming services with live or recorded sports / activity classes for youth using platforms such as Zoom, YouTube, Instagram, and proprietary mobile applications” (Dunton, Do & Wang, 2020).

As the requirements for students during online schooling changed, many of them, especially those in primary and pre-school, benefited from more free time, which they could occupy with physical activities, outdoor games or indoors. However, these things have sometimes not been easy to accomplish because there can be very big differences in opportunities for physical activity: financial or location aspects, access to technology, household size, and health of individuals.

Promoting appropriate methods for engaging in physical activity is a major public health issue. *“Insufficient physical activity and excessive sedentary behavior (SB) among children represents a significant problem because health behavior patterns in childhood are likely to persist into adulthood and can lead to increased risk for a number of serious health conditions (e.g., overweight/obesity, type II diabetes, and metabolic syndrome) in later childhood and adulthood”* (Physical Activity Guidelines Advisory Committee, 2008).

There are currently several studies on poor nutrition of children. *“An estimated 14 million children under the age of five worldwide suffer from severe acute malnutrition, also known as severe wasting, yet only 25 percent of severely malnourished children have access to lifesaving treatment”* (World Hunger: Key facts and statistics, 2021).

Despite these truths, statistics in some parts of the world show that there is an increase in weight gain in children, which is seriously unhealthy, this being accentuated during longer vacations. In addition to the

weight gain of children during the holidays, the time spent online for school during the COVID-19 pandemic increased significantly all risk factors for weight gain (Rundle, Park, Herbstman, Kinsey & Wang, 2020).

A conclusion of the above is that we cannot talk about a balance in the world in terms of nutrition. Despite all the efforts made by the World Health Organization in collaboration with other organizations and foundations specially created to provide everyone with a healthier lifestyle, it seems that these programs are still not reaching their target.

Another difficult aspect to overlook was the strong impact that the pandemic had on the human psyche. *“This enforced quarantine can have a heavy psychological impact, above all among persons with obesity who are already at risk of social isolation and experiencing higher rates of depression”* (Ryan, Ravussin & Heymsfield, 2020).

“Many studies have examined the efficacy of exercise to reduce symptoms of depression, and the overwhelming majority of these studies have described a positive benefit associated with exercise involvement” (Craft & Perna, 2004).

In an interview for the blog Healio Psychiatry, researcher Karmel Choi highlighted the following: *“We saw that being active still makes a difference regardless of genetic risk”* (Healio Psychiatry, 2019). *“A 26 % decrease in odds for becoming depressed for each major increase in objectively measured physical activity”* (Harvard Health Publishing, 2019).

5. Conclusions

In order to maintain a healthy lifestyle as much as possible, both students and teachers would have needed to establish a physical program.

For this we cannot but turn to the public health authorities, which should have come to meet individuals with well-

documented recommendations on the impact of exercise on the body. The body needs exercise because it energizes, stimulates the respiratory and cardiovascular

systems to function properly, prevents certain diseases, stimulates memory, weight loss and increases the individuals' quality of life.

REFERENCES

Choi, K. (2019). *Increased physical activity may reduce depressive episodes by 17%*. Available at: <https://www.healio.com/news/psychiatry/20191105/increased-physical-activity-may-reduce-depressive-episodes-by-17>

Craft, L.L., & Perna, F.N. (2004). The Benefits of Exercise for the Clinically Depressed. *Primary Care Companion to Journal of Clinical Psychiatry, Vol. 6, Issue 3*, 104-111. DOI:10.4088/pcc.v06n0301

Dunton, G.F., Do, B., & Wang, S.D. (2020). Early effects of the COVID-19 pandemic on physical activity and sedentary behavior in children living in the U.S. *BMC Public Health 20, Article number 1351*, available at: <https://bmcpublihealth.biomedcentral.com/articles/10.1186/s12889-020-09429-3>

Elliot, S., Drummond, M.J., Prichard, I., Eime, R., Drummond, C., Mason, R. (2021). Understanding the impact of COVID-19 on youth sport in Australia and consequences for future participation and retention. *BMC Public Health 21, Article number 448*, available at: <https://bmcpublihealth.biomedcentral.com/articles/10.1186/s12889-021-10505-5>

More evidence that exercise can boost mood. (2019). Available at: <https://www.health.harvard.edu/mind-and-mood/more-evidence-that-exercise-can-boost-mood>

Pellegrini, M., Ponzo, V., Rosato, R., Scumaci, E., Goitre, I., Benso, A. et al. (2020). Changes in weight and nutritional habits in adults with obesity during the “lockdown” period caused by the COVID-19 virus emergency. *Nutrients, Vol. 12, Issue 7*, available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7400808/>

Physical Activity Guidelines Advisory Committee. (2008). *Physical activity guidelines advisory committee report*. Washington, DC: Department of Health and Human Services, p. A1-H14.

Rundle, A.G., Park, Y., Herbstman, J.B., Kinsey, E.W., & Wang, Y.C. (2020). COVID-19 – related school closings and risk of weight gain among children. *Obesity. Vol. 28, Issue 6*, 1008-1009. DOI: 10.1002/oby.22813

Ryan, D.H., Ravussin, E., & Heymsfield, S. (2020). COVID-19 and the patient with obesity — The editors speak out. *Obesity. Vol. 28, Issue 6*, 847. doi: 10.1002/oby.22808.

Werneck, A.O., Silva, D.R., Malta, D.C., Gomes, C.S., Souza-Junior, P.R., Azevedo, L.O. et al. (2020). Associations of sedentary behaviours and incidence of unhealthy diet during the COVID-19 quarantine in Brazil. *Public Health Nutrition. 1-5*.

World Hunger: Key facts and statistics. (2021). Available on: <https://www.actionagainsthunger.org/world-hunger-facts-statistics> accessed at 12 May 2021.