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FITNESS AS A TOOL OF PSYCHO-PHYSIOLOGICAL CORRECTION

Illia Yermolenko,
Fitness Trainer, Adelina Designs Incorporated (Brooklyn, NY, USA)
ORCID ID: 0009-0003-8204-2692
yermolenkoillia65@gmail.com

Abstract. The study delves into the critical role of fitness in enhancing the psychophysiological well-being of individuals, irrespective of age or lifestyle. The primary aim of this study is to investigate the role of fitness as a tool for psycho-physiological correction, focusing on its multifaceted contributions to enhancing both physical and mental health across diverse populations. The study underscores the multifaceted nature of fitness, encompassing not only physical but also mental health aspects, including emotional balance and social adaptation. In the realm of rehabilitation post-illness, fitness emerges as a crucial component aiding in the quicker restoration of bodily functions and strengthening the immune system. Additionally, it proves beneficial for weight management by facilitating fat reduction, enhancing metabolism, and increasing muscle mass. Practical insights into fitness modalities such as aquafitness, spinning, yoga, among others, are provided, considering their suitability for diverse demographics and health goals. Furthermore, the study emphasizes the importance of tailored fitness programs based on individual needs and circumstances, with detailed guidelines outlined for exercise selection, frequency, duration, and intensity. The study details the development of fitness programs adapted to psychophysiological characteristics, emphasizing the crucial role of customization in optimizing fitness outcomes. By highlighting specific types of exercises, frequency, duration, and intensity to address sedentary lifestyles, stress, rehabilitation after illness, and weight management, the table emphasizes the need for a personalized approach to fitness interventions. In addition, the study compares professional and lay assessments of submaximal fitness testing, shedding light on the practical considerations inherent in assessing fitness levels. Practical significance. The study's findings provide valuable insights for healthcare professionals, policymakers, and individuals alike, emphasizing the holistic benefits of fitness and the need for its integration into daily life. By advocating for structured and personalized approaches to exercise, the research aims to enhance individual health outcomes and contribute to broader public health initiatives.

Key words: fitness, psychophysiological health, exercise modalities, tailored programs, evaluation.

Introduction. In contemporary society, the importance of physical fitness transcends mere aesthetics, extending to the optimization of individuals' psychophysiological well-being. Sedentary lifestyles, prevalent among various demographics, contribute to a plethora of health challenges, emphasizing the critical need for effective strategies to mitigate their adverse effects. The integration of fitness into daily routines has emerged as a promising approach to address these concerns, offering multifaceted benefits for both physical and mental health. However, despite widespread recognition of fitness's significance, there remains a need for a comprehensive understanding of its role as a tool for psychophysiological correction. This necessitates an exploration of tailored fitness interventions designed to address specific health challenges, alongside an examination of the methodologies employed in assessing their efficacy. Through a nuanced analysis of fitness programs and assessment protocols, this study aims to elucidate the intricate interplay between physical activity and psychophysiological well-being, providing insights that can inform personalized approaches to health promotion and disease prevention. By delving into the nuances of fitness modalities and evaluation techniques, this research endeavors to contribute to the ongoing discourse surrounding the optimization of individual health outcomes in an increasingly sedentary society.

The main part. The primary aim of this study is to investigate the role of fitness as a tool for psycho-physiological correction, focusing on its multifaceted contributions to enhancing both physical and mental health across diverse populations.

Materials and research methods. The use of fitness as a tool for psycho-physiological correction is well-covered in international scientific literature, indicating a comprehensive exploration of this subject across various cultures and academic disciplines. The significant contributions to this topic have been made by researchers such as E. Bretz et al. (2014), who explored the correlations of psycho-physiological parameters influencing the physical fitness of aged women, revealing crucial insights into the impact of regular physical activity on the elderly population's well-being. Similarly, the study by Y. Galan et al. (2019) focused on the psychophysiological state correction in young men aged 11-12 through hiking tourism, highlighting the importance of engaging physical activities at a young age for mental and physical health.

Further contributions come from S.A. Golovanov & M.M. Rasulov (2022), who delved into the correction of psychophysiological qualities in professional athletes' training, offering a perspective on high-performance sports and the necessity for tailored psycho-physiological interventions. I. Maksimenko & M. Lozhechka (2020) also provided valuable insights through their research on the psycho-physiological skills of young sumo wrestlers, suggesting that specific sports require unique psycho-physiological approaches.

Moreover, the work of B. Mytskan et al. (2017) on the correction of the elderly's psycho-physiological condition through recreational motor activity underlines the broad applicability of fitness beyond competitive sports, emphasizing its role in enhancing life quality for all age groups. The study by Y. Sergienko et al. (2023) on the fitness program for overweight women correction showcases the therapeutic potential of fitness in addressing specific health issues, such as obesity, through tailored exercise programs.

To augment the research, expert literature from contemporary online publications such as the article by L. Smith (2023) on exercise statistics and the latest fitness trends provides a broader understanding of fitness's societal and cultural dimensions. Such publications enrich the academic discourse with practical insights and real-world applicability, ensuring that the scholarly research remains connected to current trends and practices in the fitness industry.

Despite the extensive exploration of fitness as a tool for psycho-physiological correction, the literature reveals a gap in understanding how fitness specifically aids various psychological and physiological states, what the optimal training regimens should be for different conditions, and which methods are most effective for evaluating fitness outcomes. This lack of detailed guidance on the customization of fitness programs to cater to individual needs, coupled with the absence of standardized metrics for assessing the effectiveness of fitness interventions, points to a significant area for innovation in research. Addressing these gaps could lead to the development of more targeted fitness programs, enhancing the precision and effectiveness of psycho-physiological corrections through tailored exercise regimens, and establishing robust evaluative frameworks to measure their success. This novel research avenue not only promises to enrich the existing body of knowledge but also to provide practical insights for the implementation of fitness as a therapeutic tool across various psycho-physiological contexts.

Results and discussion. Fitness plays a crucial role in maintaining and enhancing the psycho-physiological state of individuals, regardless of their age or lifestyle. The importance of fitness is particularly evident for intellectual workers who experience static loads and are at risk of developing conditions associated with hypodynamia (Bretz et al., 2014). Regular physical exercises improve circulation, reduce muscle tension, and enhance concentration, which are vital for maintaining productivity. For individuals with a sedentary lifestyle, especially those spending extensive periods at a computer, fitness offers benefits for preventing back problems and improving posture (Galan et al., 2019). Exercises aimed at stretching and strengthening muscles can effectively prevent the development of chronic pain. For those experiencing stress and emotional burnout, fitness aids in psycho-physiological adaptation by stimulating endorphin production and improving mood.

In the context of rehabilitation after illnesses, fitness serves as a key component of recovery, aiding in the quicker restoration of bodily functions and strengthening the immune system through adapted physical exercises (Golovanov & Rasulov, 2022). This is particularly relevant for individuals who have undergone surgeries or sustained injuries. In the realm of weight management, fitness not only facilitates the reduction of fat deposits but also enhances metabolism and increases muscle mass, which is essential for long-term health maintenance (Sergienko, 2023).

The overall impact of fitness on an individual extends far beyond physical health, encompassing a wide range of psychophysiological aspects. The research conducted by Vorobiova and Vysochina (2018) reveals the correlations between consistent training and a variety of characteristics that affect an individual's physical and psychological state. Fitness contributes to the holistic development of a person, including mental health, emotional balance, and social adaptation.

Thus, regular workouts foster the harmonious development of the individual, strengthening not only physical but also mental health, and developing essential life skills and qualities. It is important to understand that fitness is not merely a means to achieve an ideal physique but a pathway to a fulfilling, healthy, and balanced life.

Hence, fitness serves as a universal tool for supporting and enhancing the quality of life, offering a wide range of benefits for the physical and mental health of individuals across different ages and life circumstances.

In the context of fitness utility, Smith (2023) highlights its importance in the American market as a key component of health culture and active lifestyle. Although only one-fifth of American adults engage in physical exercises daily, the health and fitness club sector's value is estimated at $32 billion, indicating significant interest in fitness. Among the adult population, 26.3% of men and 18.8% of women adhere to national recommendations for physical activity. Particularly active are individuals aged 18 to 34, indicating a high level of engagement among the younger generation in fitness. However, a challenge remains with the low level of physical activity among children, where more than three-quarters do not engage in the necessary 60 minutes of activity daily. Geographic differences are also noticeable, with Colorado leading in physical activity levels and Mississippi at the opposite end. Additionally, the home fitness market is showing significant growth, reaching $11.3

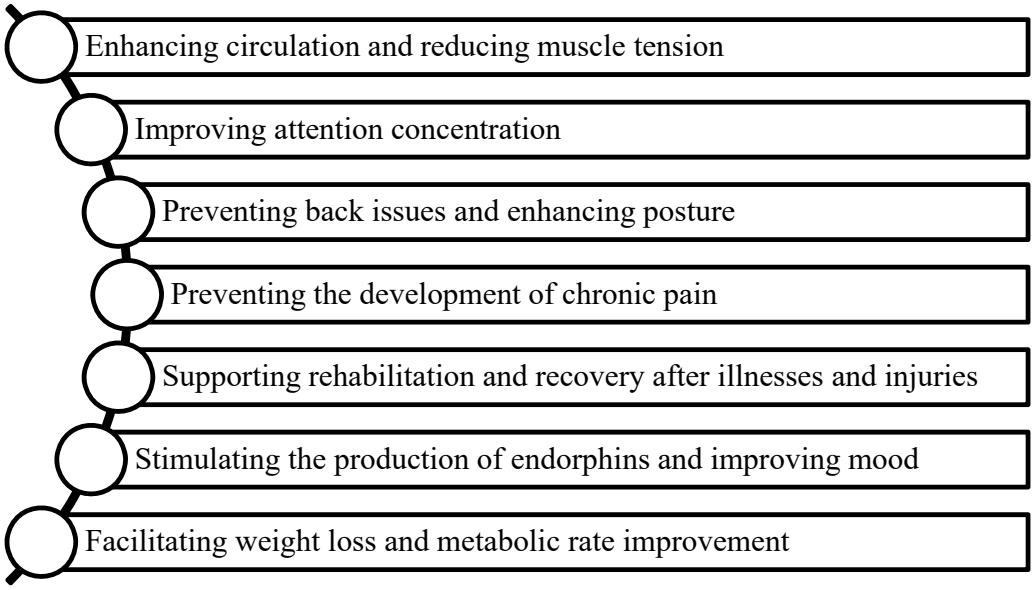

Fig. 1. The primary objectives of fitness in psychophysiological correction

Note: systematized by the author based

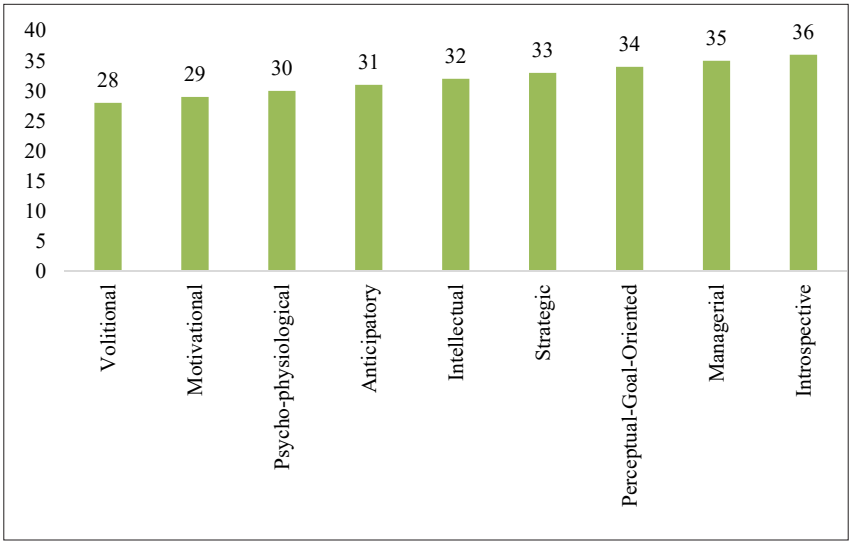

Fig. 2. The interrelations between fitness activities and the development of various abilities, characteristics, and properties

Note: Compiled by the author based on the research by Vorobiova & Vysochina (2018).

billion, reflecting the increasing popularity of virtual workouts and home fitness practices, especially during the pandemic.

Fitness represents one of the most popular health enhancement systems globally, distinguished by its individual approach and diet personalization for each participant. Sergienko et al. (2023) emphasize that the modern fitness industry offers a broad spectrum of fitness types to meet diverse needs and preferences. Popular fitness modalities include:

– Aqua fitness: water-based workouts that reduce the risk of injury and are suitable for all age groups.
– Aqua jogging: water running that combines aerobic and walking elements in water.
– Spinning (Reebok Cycle): stationary bike workouts to music under an instructor's guidance.
– Pump fitness: strength training using light dumbbells to sculpt muscles.
– Spin bike aerobics: aerobic bike workouts focused on endurance and calorie burning.
– Slide fitness: workouts using special flat boards (sliders) for sliding movements.
– Resistball: exercises using an elastic ball to strengthen muscles and improve balance.
– Step fitness: aerobics using a special platform (step) to enhance coordination and stamina.
– Double step: a more complex variation of step fitness using two platforms.
– Yoga fitness: combines traditional yoga with fitness elements for stretching and muscle strengthening.
– Box fitness: workouts incorporating boxing elements to enhance physical condition and endurance.
– Karate fitness: a mix of karate and fitness to develop strength, speed, and flexibility.

With the rise of home workouts, especially in the context of global changes related to the pandemic, Sergienko et al. (2023) also note the significant development of fitness mobile applications. These apps allow users to access personalized training programs, video instructions, and expert advice from home. The benefits of using such apps include:

– Accessibility: The ability to work out at any convenient time without the need to visit a gym.
– Flexibility: Choosing workouts according to personal goals, fitness level, and preferences.
– Time and money savings: No need to spend time commuting to a fitness center and saving on gym memberships.

– Personalization: Customizing training programs to individual needs and objectives.

– Progress tracking: Integrated tools for monitoring progress and analyzing workout results.

The selection of fitness programs tailored to specific issues is paramount, integrating exercises aimed at improving circulation, reducing muscle tension, enhancing concentration, and fostering overall well-being. For individuals in sedentary occupations or those experiencing stress and emotional burnout, fitness routines tailored to stretching, strengthening, and cardiovascular activities are essential. These activities not only mitigate the risk of chronic pain and posture-related ailments but also facilitate psychological adaptation through the stimulation of endorphins.

In the context of rehabilitation post-illness or injury, fitness programs are meticulously designed to restore bodily functions and bolster the immune system, incorporating low-impact, flexibility, and strength-building exercises. The role of fitness in weight management extends beyond fat reduction to encompass metabolic enhancement and muscle mass augmentation, underscoring its significance in long-term health maintenance.

The table 1 encapsulates the fitness program selection based on the aforementioned psychophysiological issues, detailing the type of exercise, frequency, duration, and intensity suitable for each category.

Table 1

Formation of a fitness program considering psychophysiological characteristics

Psychophysiological Issue	Type of Exercise	Frequency	Duration	Intensity
Sedentary Lifestyle	Stretching, Core Strengthening	3-4 times/week	30-45 min	Moderate
Stress and Burnout	Cardiovascular, Yoga	4-5 times/week	30-60 min	Low to Moderate
Post-Illness Rehabilitation	Low-Impact Aerobics, Flexibility	3 times/week	20-30 min	Low
Weight Management	High-Intensity Interval Training, Strength Training	4-5 times/week	30-60 min	High

The importance of systematic training cannot be overstated. Adherence to a consistent workout schedule is crucial for realizing the full spectrum of fitness benefits. The establishment of a routine not only aids in the formation of healthy habits but also ensures progressive improvement in both physical and mental health domains. The integration of fitness into daily life, therefore, acts as a cornerstone for a balanced and healthy existence, underscoring the need for a structured and personalized approach to exercise.

The implementation of these fitness programs can be undertaken either under the supervision of a physical trainer, a virtual trainer, or independently following a consultation with a healthcare practitioner. Prior to embarking on any fitness regimen, it is imperative to assess one's overall psychological state, as this will significantly influence the suitability and effectiveness of the chosen program.

Engaging in these exercises under the guidance of a trainer can provide personalized feedback and modifications, ensuring the activities are performed safely and effectively. Conversely, virtual trainers offer a more flexible and accessible option, leveraging technology to deliver customized workout plans and instructional content. For those who prefer or are constrained to an independent approach, it is crucial to seek initial guidance from a healthcare professional to tailor the program to one's specific needs and limitations.

To gauge the effectiveness of the training and its impact on one's psychophysiological health, it is essential to conduct evaluations both prior to initiating the fitness regimen and after a predetermined period of consistent participation. This assessment can encompass both physical measurements (such

as strength, flexibility, and endurance) and psychological evaluations (including stress levels, mood, and cognitive function). This dual approach ensures a comprehensive understanding of the benefits derived from the fitness program, allowing for adjustments as necessary to optimize outcomes.

In summary, the selection and execution of fitness programs for psychophysiological correction are highly personalized processes that necessitate initial and ongoing evaluations to ensure their effectiveness and alignment with individual health goals.

To assess the level of psychophysical condition through fitness, the Submaximal Fitness Test (SFT) method is employed, based on the key findings of Shushan et al. (2022).

Table 2

Comparative Analysis of Professional and Non-Professional Assessments in Submaximal Fitness Testing

Criterion	Professional Assessment	Non-Professional Assessment
Testing Conditions	Specialized laboratories or training centers	Home environment with limited resources
Equipment	Professional diagnostic equipment (e.g., ergometers, systems for measuring VO2 max)	Heart rate monitors, smartwatches, inertial measuring devices (if available)
Assessment Parameters	Comprehensive assessment, including detailed analysis of cardiorespiratory, metabolic, mechanical, and neuromuscular functions	Main focus on heart rate frequency, perceived exertion, possibly basic mechanical responses
Testing Protocol	Individually designed protocols based on recent research and standards	Simplified or adapted versions of professional protocols, accessible to non-specialists
Results Analysis	In-depth analysis using statistical software and professional methodologies	Self-interpretation of results, with possible limitations in accuracy and objectivity
Repeatability	High, thanks to standardized conditions and equipment	May vary due to changing home conditions and equipment
Use of Results	Development of detailed training plans, rehabilitation, scientific research	Personal self-monitoring, basic training planning

Note: Systematized by the author based on Shushan et al. (2022).

Conclusions. In conclusion, the comprehensive examination of fitness as a mechanism for psychophysiological correction elucidates its multifaceted contributions to enhancing both physical and mental health across diverse populations. Fitness transcends mere physical activity, embodying a holistic approach to well-being that integrates various exercise modalities tailored to individual needs and circumstances. The evidence presented underscores the pivotal role of fitness in mitigating the adverse effects of sedentary lifestyles, facilitating recovery post-illness or injury, managing weight, and bolstering overall mental health and emotional well-being.

The structured implementation of fitness regimes, whether under professional guidance or through digital platforms, is instrumental in achieving these outcomes. It is imperative that these programs are predicated on a thorough assessment of an individual's psychophysiological state to ensure maximal benefit and adherence.

Furthermore, the integration of fitness into daily routines represents a proactive measure against the burgeoning public health crisis of physical inactivity and its associated comorbidities. The burgeoning growth of the fitness industry, particularly in digital and home-based fitness solutions, reflects a paradigm shift towards more accessible and personalized health interventions.

Given the substantial evidence supporting the broad spectrum of benefits conferred by regular fitness activities, it is incumbent upon healthcare professionals, policymakers, and individuals to advocate for and integrate physical activity into the fabric of daily life. This concerted effort will not only enhance individual health outcomes but also contribute significantly to the overall well-being and resilience of communities at large.

In light of these findings, future research should continue to explore innovative fitness modalities and technologies, aiming to broaden access and engagement across all segments of society. The ongoing evolution of the fitness industry, coupled with a deeper understanding of its psychophysiological impacts, holds promise for advancing public health and individual well-being in the 21st century.

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