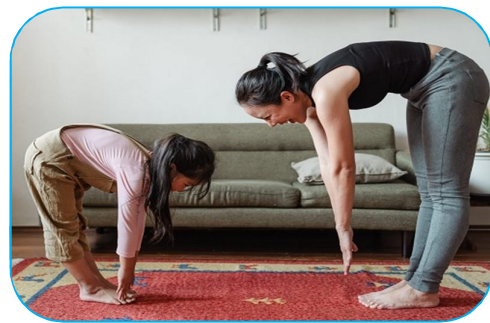




IMPACT OF REGULAR EXERCISE ON PHYSICAL AND PSYCHOLOGICAL HEALTH

Dr. Amit Kumar Singh**Associate Professor Department of Physical Education,
Government Degree College Faridpur Bareilly.****ABSTRACT**

Regular exercise is an essential component of a healthy lifestyle and plays an important role in maintaining both physical and psychological health. The present study examines the impact of regular exercise on physical fitness, cardiovascular health, muscular strength, endurance, weight management, flexibility, and prevention of lifestyle-related health problems. It also focuses on the psychological benefits of exercise, including stress reduction, anxiety management, improved mood, self-esteem, emotional well-being, sleep quality, concentration, and overall quality of life. The study uses a descriptive research approach and considers information related to exercise frequency, duration, participation patterns, and perceived health outcomes. Data can be collected through questionnaires, observations, and relevant secondary sources and presented through tables, percentages, and graphical analysis. The study highlights that consistent participation in physical activity can contribute to improved physical functioning and psychological well-being. Regular exercise also provides opportunities for developing self-discipline, confidence, positive emotional experiences, and healthy daily routines. The study emphasizes the importance of promoting appropriate and sustainable exercise practices among individuals through awareness, physical education, family support, educational institutions, and community programmes. Overall, regular exercise can be considered an important component of a balanced lifestyle that supports physical health, psychological well-being, and improved quality of life.



KEYWORDS: Regular Exercise, Physical Health, Psychological Health, Physical Fitness, Stress Management, Anxiety, Mental Well-Being, Self-Esteem, Sleep Quality, Quality of Life.

INTRODUCTION

Regular exercise is an essential component of a healthy and balanced lifestyle. Physical activity includes walking, running, cycling, swimming, yoga, sports, and other forms of planned bodily movement. Regular participation in exercise helps improve physical fitness, muscular strength, endurance, flexibility, coordination, and balance. It supports cardiovascular functioning and contributes to maintaining a healthy body weight. Exercise also helps individuals maintain healthy bones, muscles, and joints and improves the ability to perform daily activities efficiently. In contemporary society, sedentary lifestyles and reduced physical activity have become important concerns for overall health. Regular exercise can therefore play an important role in maintaining physical fitness and reducing risks associated with physical inactivity. Apart from physical benefits, exercise also provides opportunities for recreation, relaxation, social interaction, and positive emotional experiences. Consistent physical

activity can contribute to improved energy levels, better functional capacity, and enhanced quality of life. Thus, regular exercise has considerable importance for individuals of different ages and backgrounds.

The influence of regular exercise extends beyond physical fitness to psychological health and emotional well-being. Physical activity can help individuals manage everyday stress, reduce feelings of tension, and support a positive mood. Regular exercise may also contribute to self-esteem, self-confidence, emotional stability, and psychological resilience. Participation in physical activities can support cognitive functions such as concentration, attention, memory, and mental alertness. Exercise is also associated with healthy sleep patterns and can help individuals establish disciplined and structured daily routines. Group exercises and sports provide opportunities for social interaction, cooperation, communication, and a sense of belonging. For students, working adults, and older people, suitable physical activity can contribute to maintaining psychological well-being and improving daily functioning. However, the effects of exercise can vary according to frequency, duration, intensity, individual health conditions, age, and type of activity. Therefore, regular exercise should be practiced appropriately and consistently according to individual needs and circumstances. The present study examines the impact of regular exercise on physical and psychological health and highlights its importance in promoting overall well-being and a healthier quality of life.

AIM AND OBJECTIVES:

Aim:

The main aim of the study is to examine the impact of regular exercise on the physical and psychological health of individuals and to understand how consistent participation in physical activity contributes to overall well-being and quality of life. The study aims to examine the relationship between regular exercise and physical fitness, cardiovascular health, muscular strength, endurance, flexibility, weight management, and general physical functioning. It also seeks to understand the contribution of regular exercise to psychological well-being, including stress management, anxiety reduction, emotional balance, self-esteem, self-confidence, sleep quality, concentration, and positive mood. The study further aims to examine the importance of maintaining regular physical activity as part of a healthy lifestyle. It considers the role of exercise in developing healthy habits, discipline, active living, and improved daily functioning. The study also seeks to identify the perceived benefits of different frequencies and patterns of exercise among selected respondents.

Objectives:

- ❖ To study the importance of regular exercise for maintaining physical health.
- ❖ To examine the impact of exercise on physical fitness, strength, and endurance.
- ❖ To assess the relationship between regular exercise and cardiovascular health.
- ❖ To examine the role of exercise in weight management and healthy body composition.
- ❖ To study the influence of exercise on flexibility, mobility, and physical functioning.
- ❖ To examine the role of regular exercise in preventing lifestyle-related health problems.
- ❖ To study the impact of exercise on psychological well-being.
- ❖ To examine the role of exercise in stress management and relaxation.
- ❖ To assess the relationship between regular exercise and anxiety and emotional well-being.
- ❖ To examine the influence of exercise on self-esteem and self-confidence.

NEED AND SIGNIFICANCE OF THE STUDY:

Regular exercise is increasingly important because modern lifestyles often involve prolonged sitting, reduced physical activity, irregular routines, and increased dependence on technology. Physical inactivity can negatively influence physical fitness, energy levels, mobility, and general health. Therefore, there is a need to study how regular exercise contributes to maintaining physical health and functional capacity. Exercise supports muscular strength, cardiovascular fitness, flexibility, endurance, weight management, and healthy movement patterns. The study is also needed to understand the

relationship between exercise participation and the prevention of lifestyle-related health problems. Different forms of exercise may provide different physical benefits, making it important to examine exercise frequency, duration, intensity, and participation patterns. The study can provide useful information about the importance of developing regular physical activity habits among individuals. It also emphasizes the importance of appropriate exercise across different age groups and lifestyles. Understanding these benefits can encourage individuals to include suitable physical activity in their daily routines. The study is therefore significant for promoting awareness about the role of exercise in maintaining physical fitness and supporting a healthier lifestyle.

The significance of the study extends to the psychological dimensions of health and overall well-being. Regular exercise can provide opportunities for stress management, relaxation, emotional regulation, social interaction, and positive mood. Studying these effects is important because psychological well-being influences daily functioning, interpersonal relationships, academic activities, occupational performance, and quality of life. Exercise may also support self-esteem, self-confidence, concentration, sleep quality, and emotional balance. The study can help students, teachers, families, health educators, physical education professionals, and community organizations understand the broader benefits of regular physical activity. It may also identify common barriers such as lack of time, motivation, facilities, awareness, and suitable opportunities for exercise. The findings can support the development of physical education programmes, health-awareness campaigns, community exercise activities, and individual wellness practices. The study is significant because it considers physical and psychological health together rather than treating them as separate dimensions. It can contribute to greater awareness of active living and encourage sustainable exercise habits. Overall, the study provides a basis for understanding how regular exercise can support physical health, psychological well-being, and improved quality of life.

REVIEW OF LITERATURE:

Existing literature widely recognizes regular exercise as an important factor in maintaining physical health and overall well-being. Researchers have examined the relationship between physical activity and cardiovascular fitness, muscular strength, endurance, flexibility, body weight, and functional capacity. Studies indicate that consistent physical activity can support cardiovascular functioning and contribute to healthy body composition. Research has also highlighted the importance of exercise in maintaining muscular and skeletal health and improving physical performance. Different forms of exercise, including aerobic activities, resistance training, stretching, yoga, walking, and recreational sports, have been investigated for their physical benefits. Literature suggests that the health effects of exercise are influenced by factors such as frequency, duration, intensity, type of activity, age, and individual characteristics. Studies have further examined the relationship between physical activity and the prevention of several lifestyle-related health problems. Researchers have emphasized that regular movement is particularly important in populations experiencing sedentary lifestyles. Exercise has also been associated with improved energy levels, mobility, physical independence, and quality of life. These findings indicate that regular exercise can form an important component of preventive health and healthy living. The literature therefore provides a strong basis for examining patterns of exercise participation and their relationship with physical health outcomes.

Research has also increasingly examined the psychological effects of regular exercise. Studies have reported associations between physical activity and improved mood, reduced perceived stress, emotional well-being, and greater self-esteem. Exercise has been investigated as a supportive approach for managing symptoms related to anxiety and depression, although its effects can vary between individuals and circumstances. Literature also indicates that physical activity may contribute to better sleep quality and cognitive functions such as attention, concentration, and memory. Participation in group exercise and sports can provide social interaction, cooperation, communication, and a sense of belonging, which may further support psychological well-being. Researchers have also examined exercise among students, working adults, and older people, identifying potential benefits across different stages of life. At the same time, studies recognize barriers to regular exercise, including lack of

time, motivation, facilities, safety, and awareness. Recent literature emphasizes the importance of accessible, enjoyable, and sustainable physical activity programmes that fit individual needs and lifestyles. Overall, the reviewed literature demonstrates that regular exercise has interconnected physical and psychological dimensions and can contribute to broader health and quality of life. Further research is needed to examine these relationships within specific populations and contexts using systematic quantitative and qualitative approaches.

RESEARCH METHODOLOGY:

The present study adopts a descriptive and analytical research methodology to examine the impact of regular exercise on physical and psychological health. The study focuses on individuals participating in different forms of physical activity, including walking, running, cycling, yoga, gym-based exercise, recreational activities, and sports. Both primary and secondary data are considered for the study. Primary data may be collected through a structured questionnaire from selected respondents. The questionnaire covers exercise frequency, duration, type of activity, participation patterns, perceived physical benefits, psychological benefits, stress management, sleep quality, self-confidence, and overall well-being. A suitable sample of respondents may be selected using convenient or purposive sampling according to the objectives of the study. The study may include respondents from different age groups and backgrounds to obtain a broader understanding of exercise participation. Secondary information may be collected from books, research journals, academic publications, government reports, health-related publications, and reliable institutional sources. The research follows a systematic procedure for collecting, organizing, classifying, and interpreting the data. Ethical considerations such as voluntary participation, informed responses, confidentiality, and appropriate use of collected information are maintained throughout the research process.

The collected quantitative data are analyzed using frequency, percentage, tables, and graphical representations to identify patterns in exercise participation and perceived health outcomes. The study examines the relationship between exercise frequency and physical benefits such as improved fitness, strength, endurance, flexibility, cardiovascular health, and weight management. Psychological outcomes such as stress reduction, anxiety management, mood improvement, self-esteem, self-confidence, sleep quality, concentration, and emotional well-being are also analyzed. Comparative analysis may be used to identify differences among respondents according to exercise frequency or participation level. The study also considers barriers that may prevent individuals from participating regularly in exercise, including lack of time, motivation, facilities, awareness, and suitable opportunities. The research period and geographical area are determined according to the availability of respondents and data. The methodology is designed to provide a systematic understanding of both physical and psychological outcomes associated with regular exercise. Although the study primarily examines perceived health benefits rather than clinical diagnoses, the findings can provide useful information about exercise habits and general well-being. The results are interpreted in relation to the objectives of the study and are used to develop appropriate findings, recommendations, and conclusions.

PHYSICAL HEALTH EFFECTS:

Regular exercise plays an important role in maintaining and improving physical health. Consistent participation in physical activity helps develop muscular strength, endurance, flexibility, coordination, and balance. Regular aerobic exercise supports cardiovascular fitness and healthy blood circulation, while resistance exercises strengthen muscles and improve functional capacity. Physical activity also contributes to healthy body weight and body composition by supporting energy expenditure. Weight-bearing exercises can help maintain bone strength and musculoskeletal health. Regular movement may improve mobility, posture, physical stamina, and the ability to perform routine activities efficiently. Exercise can also support healthy blood pressure, blood glucose regulation, and metabolic functioning when combined with appropriate nutrition and other healthy lifestyle practices. Individuals who participate regularly in physical activities may experience improved energy levels and

reduced effects of prolonged sedentary behaviour. Thus, exercise is an important component of maintaining physical fitness and supporting healthy daily functioning.

The physical benefits of exercise depend on factors such as the type, frequency, intensity, duration, and regularity of activity. Walking, jogging, cycling, swimming, and other aerobic activities can improve cardiovascular endurance, whereas strength training can enhance muscular strength and endurance. Stretching and flexibility exercises can improve range of movement and physical mobility. Balance and coordination activities can support stability and functional movement, particularly among older adults. Regular exercise can also contribute to better sleep and physical recovery, which further supports overall health. An appropriate exercise routine can help individuals develop disciplined and sustainable health habits. However, exercise should be suitable for the individual's age, fitness level, abilities, and personal circumstances. Gradual progression, adequate rest, hydration, nutrition, and recovery are important for safe participation. Excessive or inappropriate exercise may increase the risk of fatigue or injury, making balanced participation important. Overall, regular exercise contributes to physical fitness, functional health, disease prevention, and improved quality of life, making it an important part of a healthy and active lifestyle.

PSYCHOLOGICAL HEALTH EFFECTS:

Regular exercise has an important role in supporting psychological health and emotional well-being. Physical activity provides opportunities for relaxation, recreation, social interaction, and positive emotional experiences. Consistent exercise can help individuals manage everyday stress and may reduce feelings of tension and psychological pressure. Regular participation in physical activity is also associated with improved mood and greater feelings of well-being. Exercise can contribute to self-esteem and self-confidence by providing opportunities to achieve personal goals and observe improvements in physical abilities. Physical activity may also support emotional regulation and help individuals develop healthier ways of responding to daily challenges. Regular exercise can be particularly useful as part of a balanced lifestyle that includes adequate sleep, healthy nutrition, social relationships, and other positive health behaviours. Group exercises and sports can additionally provide opportunities for cooperation, communication, friendship, and social belonging. These social experiences may contribute to psychological well-being and reduce feelings of isolation. Thus, regular exercise can influence psychological health through physical, emotional, cognitive, and social pathways.

Exercise may also support cognitive functioning, including concentration, attention, memory, and mental alertness. Regular physical activity can contribute to better sleep quality, and healthy sleep is closely connected with emotional and psychological functioning. Exercise is sometimes used as a supportive component in approaches to managing stress, anxiety, and depressive symptoms, although individual responses may differ. The psychological benefits may depend on the type, frequency, intensity, duration, and personal enjoyment of the activity. Activities such as walking, yoga, sports, cycling, swimming, and strength training can provide different opportunities for relaxation and psychological engagement. Establishing a regular exercise routine may also develop discipline, goal setting, self-management, and a sense of personal accomplishment. However, exercise should complement rather than replace professional support when an individual experiences significant or persistent psychological difficulties. A balanced and sustainable approach to physical activity is therefore important. Overall, regular exercise can contribute to psychological well-being by supporting mood, stress management, self-confidence, cognitive functioning, sleep, and social connectedness, thereby contributing to a better quality of life.

DATA ANALYSIS AND INTERPRETATION:

The data analysis focuses on examining the relationship between regular exercise and the physical and psychological health of the respondents. The collected data are classified according to exercise frequency, physical health benefits, psychological health benefits, stress management, sleep quality, self-esteem, and overall well-being. Frequency and percentage methods are used to analyze the responses, while tables and graphical representations can be used to present the findings clearly. The

analysis of exercise frequency helps identify the proportion of respondents who participate in physical activity daily, several times a week, occasionally, or rarely. Physical health responses are interpreted in relation to fitness, muscular strength, endurance, flexibility, cardiovascular health, weight management, and general physical functioning. The data can also be compared across different levels of exercise participation to understand variations in perceived physical benefits. Such analysis provides a systematic basis for examining whether regular participation in exercise is associated with better physical health outcomes.

The psychological dimension of the data analysis focuses on stress reduction, anxiety management, mood, emotional well-being, self-confidence, self-esteem, sleep quality, concentration, and mental alertness. The responses are organized into suitable categories such as high, moderate, low, or no perceived impact. Percentages are calculated to identify the distribution of respondents across these categories. The analysis can also examine whether respondents who exercise more regularly report greater psychological benefits than those who participate less frequently. The interpretation considers the possible influence of exercise on daily stress, emotional balance, sleep, confidence, and overall quality of life. Barriers such as lack of time, motivation, facilities, awareness, and suitable opportunities are also considered when interpreting exercise participation. The findings obtained from the tables can be used to identify major patterns and relationships within the selected sample. Overall, the data analysis provides a structured understanding of how regular exercise is perceived to influence both physical and psychological health and supports the objectives of the study.

Table 1: Frequency of Regular Exercise Among Respondents

Sr. No.	Frequency of Exercise	No. of Respondents	Percentage (%)
1	Daily	30	30%
2	4-6 days per week	25	25%
3	2-3 days per week	25	25%
4	Once a week	10	10%
5	Rarely/Never	10	10%
Total		100	100%

Table 2: Impact of Regular Exercise on Physical Health

Sr. No.	Physical Health Benefit	High Impact	Moderate Impact	Low Impact
1	Improved physical fitness	55	30	15
2	Increased muscular strength	45	35	20
3	Improved cardiovascular fitness	50	32	18
4	Better flexibility and mobility	42	38	20
5	Weight management	48	34	18
6	Improved stamina and endurance	52	33	15

Table 3: Impact of Regular Exercise on Psychological Health

Sr. No.	Psychological Health Benefit	High Impact	Moderate Impact	Low Impact
1	Reduced stress	50	35	15
2	Reduced anxiety	45	38	17
3	Improved mood	55	32	13
4	Increased self-confidence	48	35	17
5	Improved emotional well-being	52	34	14
6	Reduced depressive symptoms	40	40	20

Table 4: Impact of Regular Exercise on Stress Management

Sr. No.	Stress-Related Effect	No. of Respondents	Percentage (%)
1	Highly reduced stress	45	45%
2	Moderately reduced stress	35	35%
3	Slightly reduced stress	12	12%
4	No noticeable change	8	8%
Total		100	100%

RESULTS/FINDINGS:

The findings of the study indicate that regular exercise is associated with several positive physical and psychological health outcomes among the respondents. The analysis shows that individuals who participate regularly in physical activities report improvements in physical fitness, muscular strength, endurance, flexibility, stamina, and general functional capacity. Regular exercise is also associated with better cardiovascular fitness and greater awareness of healthy body weight and lifestyle practices. Respondents participating in activities such as walking, running, cycling, yoga, gym-based exercise, and sports report different levels of perceived physical benefits. The findings further indicate that exercise frequency and consistency are important factors in experiencing these benefits. Regular participation can support healthy daily routines and reduce the effects of sedentary behaviour. The study also identifies exercise as an important component of maintaining physical fitness and supporting overall health.

The findings related to psychological health indicate that regular exercise is associated with improved mood, stress management, emotional well-being, self-confidence, and self-esteem. Respondents report that physical activity provides opportunities for relaxation and helps them manage everyday psychological pressures. Regular exercise is also associated with improved sleep quality, concentration, mental alertness, and a positive attitude toward daily activities. Participation in group exercises and sports provides additional opportunities for social interaction, cooperation, and a sense of belonging. The findings suggest that exercise can contribute to both physical and psychological dimensions of quality of life. However, lack of time, motivation, facilities, awareness, and suitable opportunities are identified as common barriers to regular participation. Overall, the findings support the importance of encouraging appropriate and sustainable physical activity as part of a healthy lifestyle.

DISCUSSION:

Regular exercise is an important component of maintaining overall health because its effects extend across both physical and psychological dimensions. The findings indicate that consistent participation in physical activity is associated with improved physical fitness, muscular strength, endurance, flexibility, cardiovascular fitness, and general functional capacity. Activities such as walking,

running, cycling, swimming, yoga, strength training, and sports can provide different forms of physical benefit. Regular exercise also supports healthy body weight and can help reduce the effects of prolonged sedentary behaviour. The findings suggest that consistency is an important factor, as occasional participation may not provide the same range of benefits as a sustained exercise routine. Exercise can also encourage individuals to develop healthier daily habits and greater awareness of physical well-being. These physical benefits are particularly relevant in modern lifestyles where sedentary activities are increasingly common. Thus, regular physical activity can contribute to maintaining physical fitness and supporting healthy daily functioning.

The psychological findings demonstrate that exercise can also contribute to stress management, positive mood, emotional well-being, self-confidence, self-esteem, and improved sleep quality. Physical activity provides opportunities for relaxation, recreation, personal achievement, and social interaction, all of which may support psychological well-being. Exercise may also contribute to concentration, attention, and mental alertness, which can benefit academic, professional, and everyday activities. Group activities and sports can strengthen communication, cooperation, and social connectedness. However, the benefits of exercise may vary according to individual characteristics, type of activity, frequency, duration, and intensity. Barriers such as lack of time, motivation, facilities, awareness, and convenient opportunities can reduce participation. Therefore, exercise programmes should be practical, enjoyable, gradual, and appropriate to individual needs. Overall, the discussion indicates that regular exercise should be viewed as an important part of a balanced lifestyle because physical fitness and psychological well-being are closely interconnected. Encouraging sustainable participation in appropriate physical activity can support healthier lifestyles and improved quality of life.

RECOMMENDATIONS:

Regular exercise should be encouraged as an essential component of a healthy daily lifestyle. Individuals should be motivated to participate in suitable physical activities according to their age, fitness level, interests, and personal circumstances. Daily routines can include activities such as walking, jogging, cycling, swimming, yoga, stretching, recreational games, and strength exercises. Physical activity should be introduced gradually, particularly among individuals who have been inactive for long periods. Schools and colleges should provide adequate opportunities for physical education, sports, fitness activities, and health-awareness programmes. Workplaces can encourage active breaks, walking activities, fitness programmes, and recreational facilities for employees. Families can support regular exercise by participating in physical activities together and encouraging healthy lifestyle habits. Communities should develop accessible and safe spaces such as parks, playgrounds, walking paths, and sports facilities. Awareness programmes should explain the physical benefits of exercise, including improved fitness, strength, endurance, mobility, and cardiovascular health. Individuals should also be encouraged to maintain appropriate nutrition, hydration, rest, and recovery alongside regular exercise. Exercise routines should be consistent and sustainable rather than unnecessarily intensive.

Greater attention should also be given to the psychological benefits of regular physical activity. Exercise programmes should incorporate enjoyable activities that can help individuals manage everyday stress and support positive emotional well-being. Yoga, walking, recreational sports, and other suitable activities can be included as part of healthy stress-management routines. Individuals should be encouraged to establish realistic exercise goals and monitor their progress to develop motivation and self-confidence. Group activities can be promoted because they provide opportunities for social interaction, cooperation, communication, and a sense of belonging. Educational institutions and community organizations can organize awareness sessions highlighting the relationship between exercise, sleep, mood, concentration, and overall well-being. Barriers such as lack of time, motivation, facilities, and awareness should be addressed through flexible and accessible programmes. Digital tools can be used appropriately to track physical activity, provide reminders, and support healthy exercise routines. Individuals experiencing significant or persistent psychological difficulties should be encouraged to seek appropriate professional support rather than relying on exercise alone. Overall, coordinated efforts by individuals, families, educational institutions, workplaces, health professionals,

and communities can promote regular physical activity and contribute to improved physical and psychological health.

CONCLUSION

Regular exercise plays an important role in maintaining and improving both physical and psychological health. The study indicates that consistent participation in physical activities contributes to improved physical fitness, muscular strength, endurance, flexibility, mobility, and cardiovascular health. Regular exercise also supports healthy body weight and helps in reducing the risks associated with sedentary lifestyles and various lifestyle-related health problems. Activities such as walking, jogging, cycling, swimming, yoga, stretching, recreational games, and strength training can contribute to better physical functioning when performed regularly and appropriately. Exercise also promotes energy, stamina, coordination, and functional capacity in daily life. The findings further indicate that the benefits of exercise depend on the frequency, duration, intensity, and type of activity, as well as individual needs and physical condition. A balanced exercise routine combined with proper nutrition, adequate hydration, sufficient rest, and recovery can support long-term physical well-being. Therefore, regular physical activity should be considered an important component of a healthy and active lifestyle.

Regular exercise is equally significant for psychological health and overall quality of life. Participation in physical activity can help manage stress, improve mood, support emotional balance, and strengthen self-esteem and self-confidence. Exercise may also contribute to better sleep quality, concentration, mental alertness, and positive social interaction. Regular participation in sports and group activities can develop discipline, cooperation, motivation, and a sense of belonging. The study highlights that lack of time, low motivation, limited facilities, and insufficient awareness may restrict regular participation in exercise. These barriers can be addressed through individual commitment, supportive family environments, physical education programmes, workplace initiatives, and accessible community facilities. Institutions and communities should encourage enjoyable, safe, and sustainable forms of physical activity according to individual interests and abilities. Overall, regular exercise should be promoted as a continuous lifestyle practice rather than an occasional activity, as it supports physical fitness, psychological well-being, emotional health, and improved quality of life.

REFERENCES

1. American College of Sports Medicine. (2021). ACSM's guidelines for exercise testing and prescription (11th ed.). Wolters Kluwer.
2. Biddle, S. J. H., Fox, K. R., & Boutcher, S. H. (Eds.). (2000). Physical activity and psychological well-being. Routledge.
3. Dishman, R. K., Heath, G. W., & Lee, I. M. (2013). Physical activity epidemiology (2nd ed.). Human Kinetics.
4. Donnelly, J. E., Blair, S. N., Jakicic, J. M., Manore, M. M., Rankin, J. W., & Smith, B. K. (2009). Appropriate physical activity intervention strategies for weight loss and prevention of weight regain for adults. *Medicine & Science in Sports & Exercise*, 41(2), 459–471.
5. Garber, C. E., Blissmer, B., Deschenes, M. R., Franklin, B. A., Lamonte, M. J., Lee, I. M., Nieman, D. C., & Swain, D. P. (2011). Quantity and quality of exercise for developing and maintaining cardiorespiratory, musculoskeletal, and neuromotor fitness in apparently healthy adults. *Medicine & Science in Sports & Exercise*, 43(7), 1334–1359.
6. Haskell, W. L., Lee, I. M., Pate, R. R., Powell, K. E., Blair, S. N., Franklin, B. A., Macera, C. A., Heath, G. W., Thompson, P. D., & Bauman, A. (2007). Physical activity and public health: Updated recommendation for adults from the American College of Sports Medicine and the American Heart Association. *Medicine & Science in Sports & Exercise*, 39(8), 1423–1434.
7. Mikkelsen, K., Stojanovska, L., Polenakovic, M., Bosevski, M., & Apostolopoulos, V. (2017). Exercise and mental health. *Maturitas*, 106, 48–56.
8. Penedo, F. J., & Dahn, J. R. (2005). Exercise and well-being: A review of mental and physical health benefits associated with physical activity. *Current Opinion in Psychiatry*, 18(2), 189–193.

9. Powell, K. E., King, A. C., Buchner, D. M., Campbell, W. W., DiPietro, L., Erickson, K. I., Hillman, C. H., Jakicic, J. M., Janz, K. F., Janssen, I., Katzmarzyk, P. T., Kraus, W. E., Macko, R. F., Marquez, D. X., McTiernan, A., & Whitt-Glover, M. C. (2019). The scientific foundation for the physical activity guidelines for Americans, 2nd edition. *Journal of Physical Activity and Health*, 16(1), 1–11.
10. Rebar, A. L., Stanton, R., Geard, D., Short, C., Duncan, M. J., & Vandelanotte, C. (2015). A meta-meta-analysis of the effect of physical activity on depression and anxiety in non-clinical adult populations. *Health Psychology Review*, 9(3), 366–378.
11. Stubbs, B., Vancampfort, D., Rosenbaum, S., Firth, J., Cosco, T., Veronese, N., Salum, G. A., & Schuch, F. B. (2017). An examination of the anxiolytic effects of exercise for people with anxiety and stress-related disorders. *Psychiatry Research*, 249, 102–108.
12. Warburton, D. E. R., Nicol, C. W., & Bredin, S. S. D. (2006). Health benefits of physical activity: The evidence. *CMAJ*, 174(6), 801–809.
13. World Health Organization. (2010). Global recommendations on physical activity for health. World Health Organization.
14. World Health Organization. (2020). WHO guidelines on physical activity and sedentary behaviour. World Health Organization.
15. World Health Organization. (2022). Global status report on physical activity 2022. World Health Organization.