HJRS HEC Journal Recognition System
Category Y
International Research Journal of Arts, Humanities and Social Sciences (IRJAHSS)
ISSN (Online): 3006-4740
ISSN (Print): 3006-4732
Vol 2 Issue 1 (Oct-Dec 2024)

IMPACT OF EXERCISE ON MENTAL HEALTH OF YOUNG ATHLETES

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ABSTRACT

The purpose of this research project was to assess the" Impact of Exercise on Mental Health of Young Athletes." The study aimed to ascertain the influence of exercise on mental health, ascertain the optimal form, duration, and level of physical exertion to foster mental health, and assess the efficacy of exercise-based therapies in enhancing mental health consequences. Using a literature review methodology, the study looked at earlier studies on the subject. The results showed a significant correlation between mental health and exercise, with regular exercise associated with lowered stress levels, better mood, fewer symptoms of anxiety and despair, and increased self-esteem. To ascertain the ideal workout parameters and comprehend the underlying processes, further study is necessary. These findings aid in the creation of treatments that support young athletes' mental health and wellbeing.

Key words Impact, Exercise, Mental Health, Athletes

INTRODUCTION

Background of the Study

An increasing number of studies are showing how exercise benefits young athletes' mental health. The World Health Organization (WHO) states that mental health disorders—of which anxiety and depression are the most prevalent—are a major global cause of disability among young athletes. Exercise may improve mental health by lowering stress levels, elevating mood, boosting self-esteem, and decreasing symptoms of anxiety and sadness, according to research. Another benefit of exercise is social support, which is crucial for mental health (Biddle et al., 2019).

According to Southborough University research, young athletes between the ages of 18 and 25 who regularly exercised had decreased rates of anxiety and depression (Biddle et al., 2019). Team sports participation was linked to better mental health among college students, according to another University of Michigan study (Eisenberg et al., 2015).

The data points to the possibility that encouraging young athletes' mental health and wellbeing via exercise might be a successful tactic. Thus, encouraging physical exercise needs to be a key element of mental health treatments for this demographic (Bennie et al., 2019).

Numerous physical health advantages of regular exercise have been discovered, including a lower risk of chronic illnesses, improved cardiovascular health, and assistance in maintaining a healthy weight. But new studies have also shown the important positive effects exercise has on mental health, especially for young athletes. (Sheathe and others, 2019).

Young adulthood is a crucial phase for the development of mental health since it is when many mental health issues first manifest. Numerous mental health issues, such as stress, anxiety, and depression, have been shown to be helped by exercise both in prevention and treatment (Eisenberg et al., 2015).

Exercise has been shown in studies to improve mood, self-esteem, and cognitive performance, in addition to easing the signs and symptoms of depression and anxiety. Moreover, regular physical exercise may result in better sleep patterns and an increase in general wellbeing (Dobson, 1985).

Even though exercise may have positive effects on mental health, many young athletes do not participate in regular physical activity. Exercise may be hampered by a number of factors, such as a lack of time, motivation, or access to resources. Thus, it's critical to comprehend how exercise affects young athletes' mental health and figure out how to encourage and raise physical activity levels in this group (Mikkelsen et al., 2017).

Statement of the Problem

The high frequency of mental health illnesses in this demographic, which may have a detrimental effect on their functioning and quality of life, is the issue that research on the effects of exercise on the mental health of young athletes attempts to address. As per the World Health Organization (WHO, 2020), mental health problems are a primary contributor to impairment among young athletes globally, with depression and anxiety being the most prevalent ailments.

Furthermore, studies have shown that a number of stresses, including financial hardships, social changes, and academic expectations, put young athletes at higher risk of mental health issues (Hassan et al., 2018). Effective therapies that may support mental health and well-being in this group are thus necessary. Young athletes' mental health may be improved by exercise, according to research (Hassan et al., 2018). Exercise's complicated effects on mental health, however, may vary depending on a number of variables, including the kind, length, and intensity of the exercise, as well as individual variables like age, sex, and mental health status at baseline.

Therefore, understanding the processes behind this influence and identifying exercise treatments that are successful in promoting mental health and well-being in this demographic are

the main problems addressed by research on the relationship between exercise and mental health in young athletes.

Objectives of the study:

The study was based on following objectives

1. To determine how exercise affects young athletes' mental health
2. To assess the efficacy of exercise treatments for enhancing mental health outcomes in young athletes.
3. To determine the kind, amount, and intensity of exercise that are most beneficial in fostering mental health in young athletes.

Research Questions

1. How does exercise has effect on the mental health of young athletes?
2. How long and how hard should young athletes train in order to support their mental health?

Significance of the Study

This research on how exercise affects young athletes' mental health is important since it may provide insightful information and guide treatments meant to improve mental health and wellbeing in this demographic. Recognizing the beneficial effects of exercise on mental health outcomes may have a big influence on educators, healthcare professionals, public health policymakers, and even people. Through emphasizing the value of consistent physical exercise and its potential as a preventative and therapeutic intervention, this research may lessen the number of young athletes who suffer from mental health illnesses. Furthermore, determining the best kind, length, and level of exercise treatments helps direct the creation of focused and efficient plans to support mental health. In the end, this research may enhance young athletes' overall quality of life and contribute to their long-term wellbeing by illuminating the effects of exercise on mental health.

LITERATURE REVIEW

Young athletes' mental health benefits from exercise have been extensively researched and documented in the literature. Regular physical exercise has been linked to various good effects on one's mental health in addition to the well-known physical advantages of enhanced cardiovascular health, higher bone density, and a healthy body weight. Examining the body of research on the effects of exercise on adolescent athletes' mental health is the aim of this review.

In recent times, there has been a widespread recognition of the significance of mental health and the role that exercise plays in fostering it. Studies have shown that engaging in regular physical exercise might yield noteworthy benefits for mental health, such as mitigating symptoms of anxiety and depression, elevating mood, and augmenting general well-being. Still up for debate, however, is the precise effect that exercise has on young athletes' mental health.

With an emphasis on the possible advantages of exercise for this demographic, this chapter attempts to investigate the effects of exercise on the mental health of young athletes. We'll go over the most recent studies on the subject, looking at the data supporting exercise's beneficial impacts on mental health and talking about the potential processes by which these effects may be achieved. We are also talk about the possible drawbacks and difficulties of researching this effect on young athletes.

Numerous studies have looked at the relationship between young athletes' mental health and exercise, with many of them finding benefits. For instance, a recent meta-analysis of randomized controlled trials showed that young athletes' symptoms of depression might be effectively reduced by exercise (Mura et al., 2019). Regular exercise has been linked to improved mood, reduced anxiety, and increased self-esteem among young athletes, according to other research (Biddle et al., 2019; Sabiston et al., 2019).

Exercise encourages the production of endorphins and other neurotransmitters that may elevate mood and lower stress, which might be one reason for these benefits (Craft & Perna, 2004). Furthermore, consistent exercise may enhance general physical health, which may indirectly benefit mental health (Brown et al., 2013). To completely comprehend the processes behind the relationship between exercise and young athletes' mental health, further study is necessary. Nevertheless, there could be other elements at work as well.

Even though there may be advantages to exercise for young athletes' mental health, researching this effect is fraught with difficulties. For example, it may be challenging to prove a link between mental health outcomes and exercise since mental health can also be influenced by a wide range of other variables, including genetics, social support, and environmental stresses. Furthermore, the effects of exercise on mental health may vary from person to person, and further study is required to fully comprehend these variations.

Physical Exercise and Mental Health in Young Athletes

Numerous studies have shown that young athletes who regularly exercise may avoid or lessen their symptoms of anxiety and sadness. University students who participated in greater physical exercise reported decreased levels of anxiety and depressive symptoms, according to research by Lopez-Castedo et al. (2019). Furthermore, Kandola et al.'s (2019) comprehensive review and meta-analysis revealed that exercise therapies considerably decreased depressive symptoms in young athletes.

Young athletes' self-esteem and cognitive function have also been shown to improve with exercise. According to research by Kwan et al. (2018), university students—especially female students—who exercised reported feeling more confident about themselves. Furthermore, acute exercise enhanced young athletes' cognitive performance, especially in tests involving attention, memory, and processing speed, according to a comprehensive review and meta-analysis by Guiney and Machado (2013).

In young athletes, physical activity has also been shown to have a protective effect against certain mental health issues. According to Stubbs et al. (2018) research, adolescent athletes who engaged in regular physical exercise had a 45% lower chance of developing anxiety and depressive disorders. Furthermore, exercise was proven to lower college students' risk of acquiring drug addiction problems by Kim and Choi (2018). Depending on the situation and the person's personal experiences, several images may be connected to the relationship between young athletes' mental health and exercise.

A young adult is at a park, running while feeling peaceful and at ease. Their mental clarity and stress relief are aided by the exercise, greenery, and fresh air. Friends are doing out together while conversing at the gym. A happy and stimulating environment is produced by the endorphin surge from exercise and social contact. a yoga or meditation practitioner in their bedroom. This mild kind of exercise promotes relaxation and flexibility, two qualities that have been connected to a decrease in the symptoms of anxiety and sadness. A player in a sports team, such as basketball or soccer, who gets a sense of accomplishment and camaraderie from collaborating to achieve a shared objective. While the team element of the sport creates a feeling of purpose and connection, the activity component offers health advantages.

A person who uses exercise as a source of empowerment and relief from mental health conditions like PTSD or depression. For instance, after finishing a strenuous exercise or taking a stroll outdoors, individuals might experience an increase in their mood. This artwork can represent a person realizing their inner fortitude and perseverance. Young athletes' mental health benefits from regular exercise since it encourage relaxation and lessen the signs of stress and worry.

The internal discourse that people have with themselves when they analyze, process, and interpret

information is known as self-talk. It may have a significant influence on a person's ideas, feelings, and actions and can be either beneficial or bad. While negative self-talk may result in poor self-esteem and self-doubt, positive self-talk can encourage resilience and confidence. An individual's mental and emotional health may be significantly improved by adopting constructive self-talk practices.

Setting goals is the act of formulating clear, quantifiable, and time-bound objectives based on the ambitions and vision that a person or organization wants to accomplish. Establishing objectives includes deciding what it is that one wants to do, dissecting the objective into more manageable stages, and formulating a strategy to get there.

Objectives have to be time-bound, relevant, measurable, attainable, and specified (SMART). Setting goals may lead to better performance, more motivation, sharper concentration, and easier decision-making. Setting goals is a crucial strategy for attaining success and development that may be used for organizational, professional, or personal development.

Numerous Benefits of Exercises for Mental Health in Young Athletes

Reducing Stress and Anxiety

Endorphins are naturally occurring molecules that improve mood and help lower anxiety and stress levels. Exercise causes the release of these chemicals.

Improving Mood

By raising levels of dopamine and serotonin, two neurotransmitters involved in mood regulation, exercise may help elevate mood.

Boosting Self-Esteem

Enhancing physical beauty, building strength and stamina, and giving a feeling of control and success are all ways that exercise may assist increase self-esteem.

Enhancing Cognitive Function

Cognitive function, such as memory, concentration, and problem-solving skills, may all be enhanced by exercise.

Improving Sleep

Exercise can help young athletes fall asleep faster, sleep more deeply, and wake up feeling more rested.

Reducing Symptoms of Depression

It may be because exercise raises mood-regulating neurotransmitter levels that it is an effective therapy for mild to severe depression. All things considered, young athletes' mental health may benefit greatly from regular activity. It is advised that people exercise for at least 150 minutes a week at a moderate effort or 75 minutes a week at a high intensity. They should also do muscle-strengthening exercises at least twice a week.

There is a strong relationship between exercise and physical performance, with exercise playing a major role in physical performance. The term "physical performance" describes a person's capacity for carrying out physical duties, including playing sports, doing everyday chores, and participating in leisure activities. Exercise improves physical performance in the following ways:

Increasing heart health: People may participate in physical activity for extended periods of time by improving the health of their heart, lungs, and circulatory system via regular cardiac exercise like swimming, cycling, or jogging. Enhancing physical performance is mostly dependent on exercise. It enhances cardiovascular health, increases muscular strength and endurance, fosters balance and flexibility, boosts agility and speed, and lowers the chance of injury. These health advantages of exercise allow people to participate in a variety of physical activities for longer lengths of time and with greater efficiency, including sports, dancing, and other leisure activities.

METHODOLOGY

Research Design

A cross-sectional research design was used for this investigation. Studies that are cross-sectional are appropriate for looking at relationships between variables at a particular moment in time. In this instance, information on exercise routines and mental health is gathered concurrently by the research. This methodology makes it possible to investigate the possible effects of exercise on young athletes' mental health.

Research design is defined as a thorough plan or set of techniques used to guide data gathering and analysis. The chosen knowledge source influences the choice of study design. The influence between two variables is examined in this study, which uses a correlation research methodology.

Sample

The target population for this study comprises young athletes attending university. In this research, the overall sample size was 150 students of The Islamia University of Bahawalpur. Sampling is technique by which a sample is selected form the population. For this research, simple random sampling was used as sampling technique (Jason, 2014).

Survey Questionnaire

The participants' answers to a self-administered survey questionnaire were utilized to gather data. There were many parts to the questionnaire:

Physical Activity

The frequency, duration, and intensity of the participants' physical activity are evaluated in this section, along with their exercise habits. It also finds out what kinds of exercises they do and where they like to work out.

Mental Health Assessment:

Scales that have been validated to evaluate a variety of mental health aspects, including stress, anxiety, depression, and general well-being, are included in this area. One may use standardized measures such as the Perceived Stress Scale (PSS) or the Depression Anxiety Stress Scales (DASS).

Perceived Benefits of Exercise

The influence that exercise has on participants' mental health was examined in this section. It was evaluate their opinions on the advantages of physical activity in lowering stress, elevating mood, and boosting general wellbeing.

Data Collection Procedure

The chosen university participants were get the survey. Participants were get comprehensive information about informed consent, confidentiality, and the goal of the research. They were being informed that their participation in the survey is entirely optional and that they were given a deadline to finish it.

Data Analysis

The right statistical methods were used for the data analysis of the acquired information. The sample's exercise routine, mental health factors, and demographics was all be summed together using descriptive statistics. The effect of exercise on mental health was investigated using inferential statistics, such as regression and correlation analysis, while accounting for any confounding variables.

DATA ANALYSIS

This chapter delves into the data analysis and interpretation of our study's key variables. Several tables that provide a comprehensive overview of the frequencies and percentages of various factors under investigation.

Table 4.1 Respondents feel that exercise can provide a sense of control and empowerment over my mental health.

		N	%	Mean	Std. Deviation
I feel that exercise can provide a sense of control and empowerment over my mental health.	SDA	10	10.0%	3.43	1.08
	DA	5	5.0%		
	UD	28	28.0%		
	A	46	46.0%		
	SA	11	11.0%		

Table 4.1 shows that 46.0% of the participants agreed, 11.0% strongly agreed with the statement "I feel that exercise can provide a sense of control and empowerment over my mental health." however only a small proportion of participants, 28.0%, were undecided about the statement. The Mean Score (M=3.43) indicates a positive response to the statement among the participants, with a relatively low Standard Deviation (S.D=1.08) suggesting that the responses were relatively consistent.

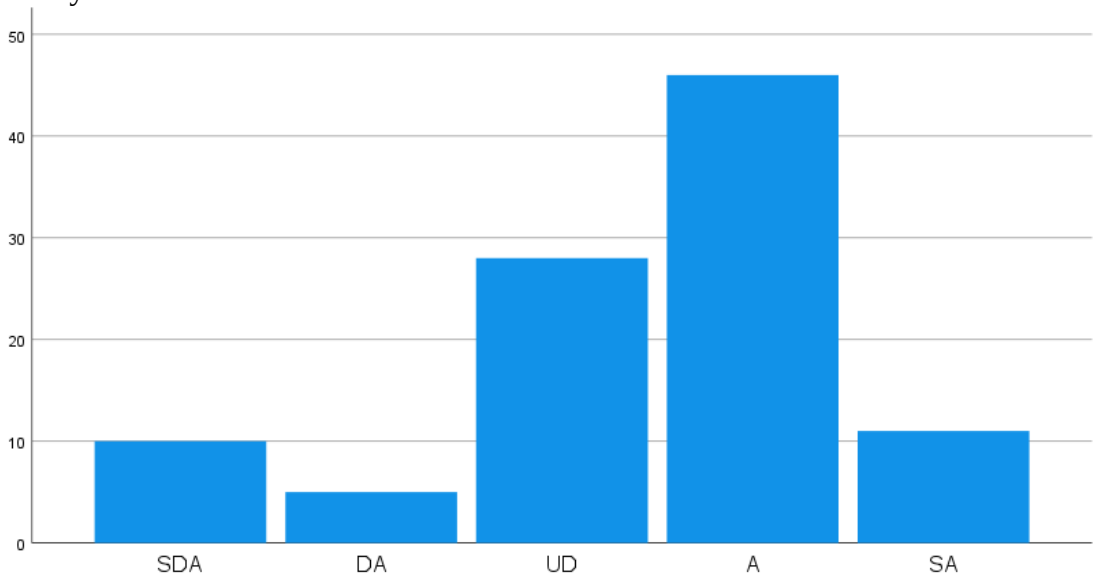


Table 4. 2 Respondents feel that engaging in regular exercise improves my mental well-being.

		N	%	Mean	Std. Deviation
I feel that engaging in regular exercise improves my mental well-being.	SDA	3	3.0%	3.68	0.95
	DA	8	8.0%		
	UD	24	24.0%		
	A	48	48.0%		
	SA	17	17.0%		

Table 4.2 shows that 48.0% of the participants agreed, 17.0% strongly agreed with the statement "I feel that engaging in regular exercise improves my mental well-being." however only a small proportion of participants, 24.0%, were undecided about the statement. The Mean Score (M=3.68) indicates a positive response to the statement among the participants, with a relatively low Standard Deviation (S.D=0.95) suggesting that the responses were relatively consistent.

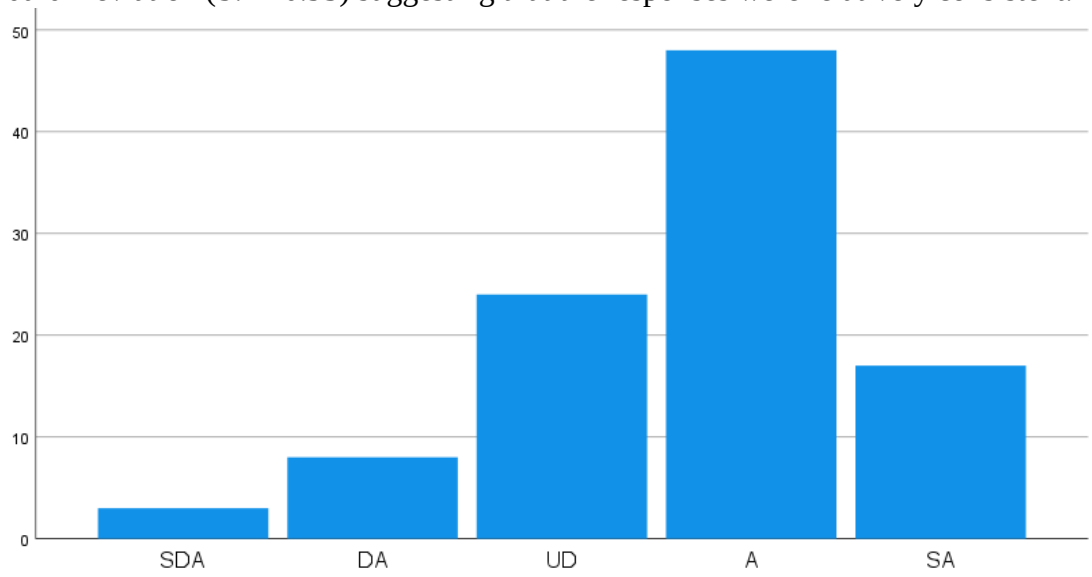


Table 4.3 Respondents feel that engaging in regular exercise improves my mental well-being.

		N	%	Mean	Std. Deviation
I feel that engaging in regular exercise improves my mental well-being.	SDA	1	1.0%	3.80	0.89
	DA	8	8.0%		
	UD	21	21.0%		

	A	50	50.0%		
	SA	20	20.0%		

Table 4.3 shows that 50% of the participants agreed that engaging in regular exercise improves their mental well-being. 20% of the participants strongly agreed, 8% were undecided, 21% disagreed, and 1% strongly disagreed. The mean score of 3.80 indicates that the participants generally had a positive view of the statement. The standard deviation of 0.89 suggests that the responses were relatively consistent.

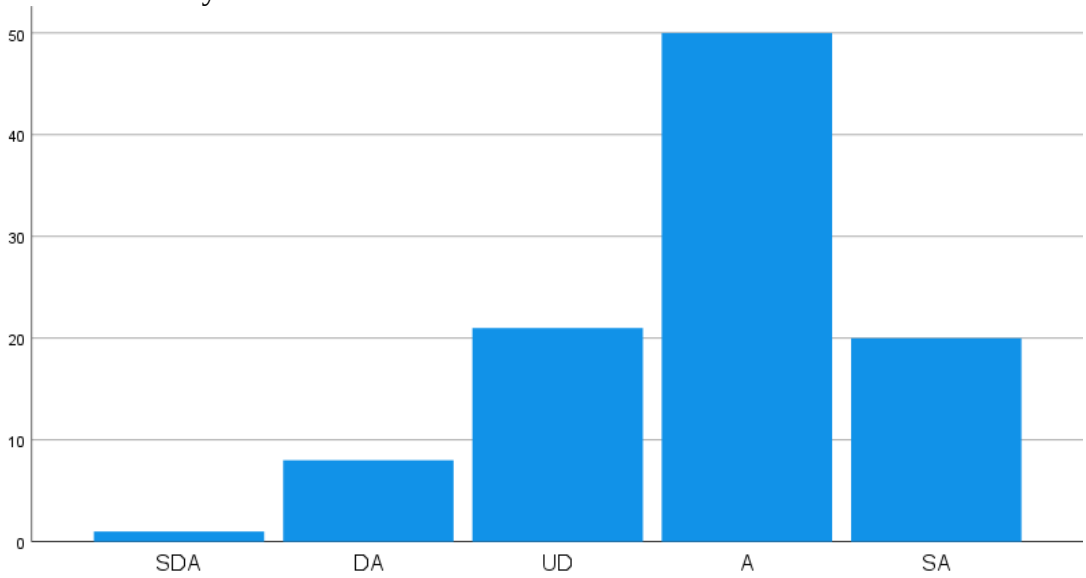


Table 4.4 Respondents agree that physical activity positively impacts my mood and overall mental state.

		N	%	Mean	Std. Deviation
I agree that physical activity positively impacts my mood and overall mental state.	SDA	7	7.0%	3.71	1.08
	DA	4	4.0%		
	UD	22	22.0%		
	A	45	45.0%		
	SA	22	22.0%		

Table 4.4 shows that 45% of the participants agreed that physical activity positively impacts their mood and overall mental state. 22% of the participants strongly agreed, 4% were

undecided, 22% disagreed, and 7% strongly disagreed. The mean score of 3.71 indicates that the participants generally had a positive view of the statement. The standard deviation of 1.08 suggests that the responses were relatively consistent.

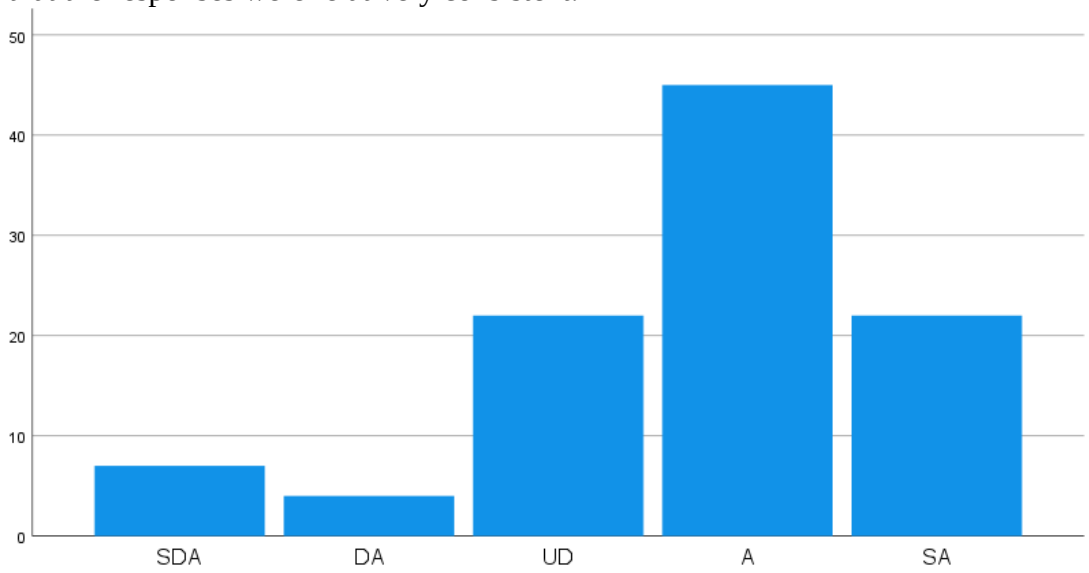


Table 4.5 Respondents believe that managing stress is crucial for mental health.

		N	%	Mean	Std. Deviation
I believe that managing stress is crucial for mental health.	SDA	4	4.0%	3.73	1.01
	DA	8	8.0%		
	UD	20	20.0%		
	A	47	47.0%		
	SA	21	21.0%		

Table 4.5 shows that 47% of the participants agreed that managing stress is crucial for mental health. 21% of the participants strongly agreed, 8% were undecided, 20% disagreed, and 4% strongly disagreed. The mean score of 3.73 indicates that the participants generally had a positive view of the statement. The standard deviation of 1.01 suggests that the responses were relatively consistent.

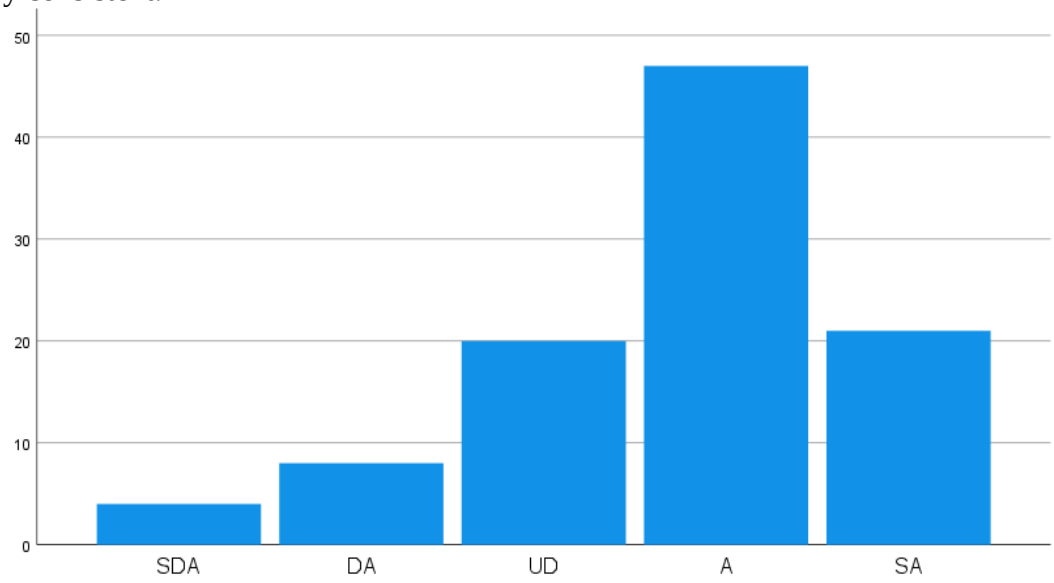
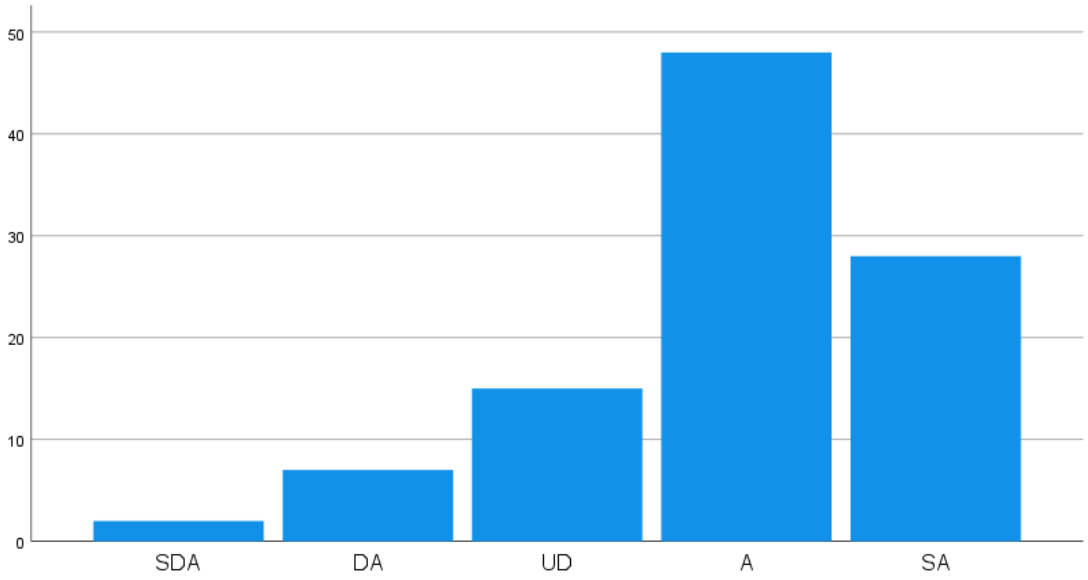


Table 4.6 Respondents feel that regular exercise has a positive impact on my mental well-being.

		N	%	Mean	Std. Deviation
I feel that regular exercise has a positive impact on my	SDA	2	2.0%	3.93	0.95

mental well-being.	DA	7	7.0%		
	UD	15	15.0%		
	A	48	48.0%		
	SA	28	28.0%		

Table 4.6 shows that 48% of the participants agreed that regular exercise have a positive impact on their mental well-being. 28% of the participants strongly agreed, 7% were undecided, 15% disagreed, and 2% strongly disagreed. The mean score of 3.93 indicates that the participants generally had a positive view of the statement. The standard deviation of 0.95 suggests that the responses were relatively consistent.



FINDINGS, CONCLUSION, AND RECOMMENDATIONS

This chapter presents the findings, conclusion, and recommendations derived from the data analysis conducted in Chapter 4. This chapter provides a comprehensive summary of the key findings, reflects upon the implications of the study, and offers recommendations for future research and practical applications.

5.1 Findings

The analysis of the data revealed several noteworthy findings related to the variables under investigation. Firstly, in terms of age, the most common age group among the participants was 22, followed closely by ages 21 and 23. This indicates a relatively balanced distribution of ages within the dataset, with the majority falling within the range of 20 to 25.

Regarding gender, the dataset predominantly comprised females, representing a significant majority. This finding highlights the need for gender-specific analysis and considerations in the context of the study's objectives.

In terms of games, cricket emerged as the most frequently mentioned game among the participants, followed closely by football. Baseball, hockey, netball, and badminton also garnered notable mentions. These findings indicate the popularity and diverse preferences for different games within the studied population.

Analysis of the participants' beliefs and perceptions related to exercise and mental health yielded several important findings. The majority of participants agreed or strongly agreed that exercise can have a positive impact on reducing symptoms of stress, improving mood and happiness, and alleviating symptoms of depression. Participants also acknowledged the role of exercise in improving sleep quality, managing emotions, enhancing problem-solving abilities, and providing a sense of control over mental health. Furthermore, there was a widespread belief in the importance of mental health, with exercise seen as a valuable tool for stress management, self-confidence improvement, and overall mental well-being.

5.2 Conclusion

Based on the findings of this study, it can be concluded that there is a strong association between exercise and mental well-being among the participants. The majority exhibited positive beliefs and perceptions regarding the impact of exercise on stress reduction, mood enhancement, symptom alleviation, and overall mental health improvement. These findings underscore the importance of incorporating regular physical activity into individuals' lifestyles to support their mental well-being.

Furthermore, the study's findings highlight the need for targeted interventions and awareness programs that promote the benefits of exercise on mental health. By emphasizing the positive effects of exercise and addressing any barriers or misconceptions, individuals can be encouraged to engage in physical activities that contribute to their overall mental well-being.

5.3 Recommendations

Based on the study's findings, several recommendations can be made:

1. Education and Awareness: Develop educational campaigns and initiatives to raise awareness about the positive impact of exercise on mental health. These efforts should target diverse populations and emphasize the benefits of exercise in reducing stress, improving mood, and enhancing overall mental well-being.
2. Integrate Exercise into Mental Health Interventions: Mental health interventions and treatment programs should incorporate physical activity as an integral component. Collaborative efforts between mental health professionals and fitness experts can help design exercise programs that specifically address mental health concerns.
3. Targeted Interventions: Tailor exercise interventions to specific populations, taking into account age, gender, and cultural factors. This approach is ensure that exercise programs are accessible, relevant, and appealing to diverse groups, thus increasing their engagement and adherence.
4. Research and Evaluation: Encourage further research to explore the long-term effects of exercise on mental health outcomes, including the specific mechanisms through which exercise influences mental well-being. Longitudinal studies and randomized controlled trials can provide valuable insights into the causal impact of exercise on mental health of young athletes.

In conclusion, this study has highlighted the significant role of exercise in promoting mental well-being. The findings emphasize the need for comprehensive strategies that encourage individuals to engage in regular physical activity to enhance their mental health.

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