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Research Article

Economic Status and Physical Fitness of Hockey Players

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ABSTRACT

In the context of hockey players' performance and growth, the relationship between economic status and physical fitness is an important factor to take into account. This study looks at how economic status affects hockey performance and physical fitness levels. Access to the necessary training facilities, equipment, nutrition, and professional coaching for maximizing physical fitness and performance can be impacted by financial resources. The study investigates the connection between economic status and various aspects of physical fitness, such as muscular strength, flexibility, speed, and agility, as well as cardiovascular endurance. Additionally, it investigates how these fitness components influence player development and on-ice performance. The study examines the connection between economic resources and physical conditioning using both quantitative and qualitative data. According to the findings, players from more affluent families typically have better access to resources that improve physical fitness, which in turn leads to improved performance outcomes. On the other hand, players who lack access to financial resources may encounter obstacles that impede their physical growth and, as a result, their performance. The findings emphasize the significance of targeted interventions to support hockey players from underprivileged backgrounds and guarantee equitable physical development opportunities. Coaches, policymakers, and sports organizations looking to reduce inequality and promote inclusive growth in the sport will benefit from this study's insightful findings.

KEYWORDS: Hockey Players, Cardiovascular Endurance, Competitor Improvement, performance

1. INTRODUCTION

A crucial but frequently overlooked aspect of sports development, particularly in hockey, is the connection between economic status and physical fitness. Hockey is a skill-based, high-intensity sport that requires exceptional physical conditioning, including endurance of the cardiovascular system, muscular strength, agility, and flexibility. Players' fitness levels and performance can be significantly impacted by having access to resources that support physical development, such as professional coaching, nutrition, training facilities, and equipment. Importance of Economic Status in Sports An athlete's ability to develop and maintain high levels of physical fitness can be profoundly affected by their economic status. Players' access to essential resources can directly impact their physical condition and performance as a whole in hockey, where the demands of the sport include intense training and frequent competition. Access to training facilities is frequently determined by economic status: Most of the time, access to cutting-edge training facilities and specialized equipment is correlated with higher economic status.

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Physical Education Director, Govt First Grade College, Shahapur-Yadagir-Karnataka, India Memberships to prestigious gyms, private training sessions, and cutting-edge fitness equipment are all options for players with more financial means. Nutritional Quality: For optimal physical performance and recovery, nutrition is essential. Players from more affluent families can afford high-quality diets, such as sports-specific nutrition plans and supplements, which help them become more fit. Professional Guidance: For developing skills and conditioning specific to a sport, it is essential to have access to knowledgeable coaches and individualized training programs. Players who have access to financial resources can receive guidance from top professionals, which results in improved physical preparation and performance. Rehabilitation and prevention of injuries: better access to healthcare services, such as injury prevention and rehabilitation, is made possible by financial resources. Players with more money are more likely to get medical care that works and is quick, which helps them stay fit and perform well. Impact of Physical Fitness on Hockey Performance Physical fitness includes several important aspects of hockey performance, including cardiovascular endurance: essential for keeping high-intensity efforts going throughout the game and making sure quick recovery occurs between shifts. Endurance and muscular endurance: essential for carrying out powerful actions like shooting and checking, as well as for maintaining performance in physically taxing circumstances. Agility and rapidity: essential for effectively responding to game dynamics, quick direction changes, and ice maneuvering. Flexibility: reduces the risk of injury and improves the range of motion required for effective skating and shooting.

OBJECTIVES OF THE STUDY

The following goals are the focus of this study:

- Evaluate the Effects of Economic Status on Resources Access: Find out how players' access to training facilities, nutrition, coaching, and medical care is affected by their economic status.
- Evaluate the Effects on Fitness: Examine how levels of cardiovascular endurance, muscular strength, speed, and flexibility are affected by differences in economic resources.
- Examine Performance Results: Find out how economic status and variations in physical fitness affect hockey performance metrics and player development as a whole.
- Identify gaps and suggest solutions: Make the disparities caused by differences in economic status known, and make suggestions for ways to make physical development opportunities more equitable.

SIGNIFICANCE OF THE STUDY

To promote equitable opportunities in hockey, it is essential to comprehend the connection that exists between physical fitness and economic status. This study aims to provide coaches, sports organizations, and policymakers with useful insights by determining how economic factors affect physical conditioning and performance. Regardless of a player's financial situation, the findings will aid in the development of disparities-reduction and holistic development strategies.

Structure of the Paper

A literature review on the relationship between economic status, physical fitness, and hockey performance will follow. It will describe the method used to evaluate these relationships, present and discuss the results, and offer suggestions for dealing with economic disparities in player development at the end.'

RESEARCH METHODOLOGY

This section provides a description of the research methodology that was used to investigate the connection between the economic status of hockey players and their physical fitness and performance. The methodology includes the research design, sampling strategies, data collection methods, and analysis procedures.

1. The study employs

A mixed-methods approach that combines quantitative and qualitative research methods to acquire a comprehensive understanding of how economic status influences physical fitness and hockey performance. In this part, statistical methods will be used to measure how the relationship between economic status and levels of physical fitness affects performance metrics. This component investigates players' experiences and perceptions regarding the impact of economic resources on their training and performance to provide contextual insights that complement quantitative findings.

2. Methods for Sampling

Amateur and semi-professional hockey players from various age groups and leagues make up the target population. To ensure a diverse sample, players from various economic backgrounds will be taken into consideration. Participants will be selected using the stratified random sampling method of sampling. The example will be partitioned into layers given financial status (e.g., high, medium, low) to guarantee portrayal from each monetary classification. Sample Size To guarantee sufficient statistical power and reliability of the results, the study aims to include approximately 150 to 200 players. The sample size is calculated using power to achieve a confidence level of 95% and a 5% error margin. Inclusion and selection criteria: Hockey players over the age of 16 who have given their consent to participate in the study and are currently playing in amateur or semi-professional leagues. Criteria for Exclusion Professional hockey players or individuals who do not actively participate in hockey during the study period

3. Methods for Collecting Data

Surveys and Questionnaires: Players' economic status, physical fitness, and performance metrics will all be evaluated using standard surveys. Economic Status Indicators Questions about access to training facilities, nutrition, coaching, and medical care will be included in the survey. Assessments of physical fitness that focus on endurance, muscular strength, flexibility, speed, and agility Performance Metrics Analysis of on-ice performance metrics derived from team statistics and game records, such as goals scored, assists, and defensive plays, may be included in fitness tests.

4. Methods for Analyzing the Data

Statistics to describe: The distribution of economic status, levels of physical fitness, and performance metrics will be described with the help of summary statistics (means and standard deviations). Statistical Inference: The results of statistical tests like t-tests and ANOVA will be used to look at how different economic status groups differ in terms of physical fitness and performance. Controlling for potential confounders, regression analysis will be used to examine the connection between economic status and physical fitness. Topical Examination: The transcripts of interviews and focus groups will be subjected to thematic analysis to discover recurring themes and patterns concerning economic status and its influence on training and performance. Data will be categorized according to perceived effects on performance, access to resources, and training experiences. The coding will be done either manually or with software for qualitative data analysis.

5. Ethical Factors to Consider

Informed Consent Before participating in the study, each participant will be required to give informed consent to ensure that they understand the purpose of the research and their rights. Confidentialit: In all reports and publications, participants' personal and financial information will be anonymized. Right to Withdraw Participants will be able to opt out of the study at any time without incurring any costs.

LITERATURE REVIEW

In the context of hockey players, the literature review investigates the connection between economic status and physical fitness. Utilizing research from related fields like sports science, psychology, and socioeconomic research, it investigates how economic resources influence physical performance and conditioning.

Status in the economic system and the ability to access resources Training facilities and equipment: Athletes' ability to access highquality training facilities and equipment is significantly influenced by economic resources. According to research (Eime et al.,), players from higher-income families frequently have better access to cutting-edge gyms, specialized training equipment, and ice time. 2013). Better physical conditioning and training programs are made possible by these resources. Examples include McCormick et al. 2015) found that athletes who have access to cutting-edge facilities and equipment are more physically fit than athletes who don't. Recovery and nourishment: For optimal physical performance and recovery, nutrition is essential. Balanced diets, supplements, and sports-specific nutrition plans can be afforded by players with more financial resources, which improves their physical fitness (Maughan & Burke, 2012). On the other hand, players' performance and conditioning may suffer as a result of having less access to nutritious foods and recovery aids due to limited financial resources (Dodge et al., 2017). Support from professionals and coaching: It is essential to have access to professional support and experienced coaching for the development of sports-specific skills and physical fitness. Personalized coaching and comprehensive

training programs, which are linked to improved athletic performance, frequently benefit players from higher-income backgrounds (Lidor & Ziv, 2010). A concentrate by Ransdell et al. (2009) emphasized that well-funded programs offer more comprehensive support, including specialized coaching and injury management, resulting in improved performance and physical fitness.

Cardiovascular Endurance

The Effect of Physical Fitness on Hockey Performance Due to the high intensity of the sport, hockey players need to have good cardiovascular endurance. Players can perform at high levels for longer periods and quickly recover between shifts if they have improved cardiovascular fitness. The study by Hoff et al. 2002) shows that players with better cardiovascular endurance perform better during games, showing more stamina and less fatigue. Endurance and muscular endurance for powerful shots, effective checks, and maintaining a physical presence on the ice, strength and endurance are essential. Stone and co. 2007) found that hockey players with more muscular strength and endurance are better able to deal with the physical demands of the sport, which in turn leads to better performance metrics. Agility and rapidity to maneuver on the ice and respond to dynamic game situations, speed, and agility are essential. According to Hohmann et al.'s research, players who excel in speed and agility training do better in both offensive and defensive roles. 2014). These physical characteristics are essential for rapid acceleration and direction changes, enhancing the game's overall effectiveness.

Flexibility: Players' range of motion is increased by flexibility, which is essential for effective skating, shooting, and injury prevention. According to Fletcher & Jones (2004), increased flexibility reduces the likelihood of muscle strains and joint injuries while also facilitating more efficient movement. Flexibility training can also help with recovery and overall physical well-being, which can improve performance.

Financial Elements and Competitor Improvement

Long haul Effect of Monetary Variations: Athlete development and performance can differ significantly due to economic disparities. Eime and colleagues' research (2013) suggests that athletes from lower socioeconomic backgrounds may encounter difficulties, such as restricted access to training facilities, coaching, and nutritional assistance. Their physical performance and conditioning may be affected by these obstacles, creating unequal opportunities for growth and advancement in the sport. Social and psychological effects: Athletes' social experiences and psychological well-being can also be influenced by their economic status. Financial constraints may cause athletes from lower socioeconomic backgrounds to experience stress, which can have an effect on their motivation and focus (Wickrama et al., 2012). Economic difficulties can also have an impact on social participation, networking opportunities, and skill development, which in turn can have an impact on performance.

Strategies for Intervention and Support Community Programs and Support

When it comes to addressing economic disparities in sports, community programs, and support initiatives play a crucial role. Players from less privileged backgrounds can benefit from programs that offer financial assistance, subsidize training costs, and provide access to facilities (Harrison *et al.*, 2013). Opportunities for physical development and performance enhancement that are more accessible to all individuals may benefit from these interventions. Organizational and policy efforts Players from a variety of economic backgrounds can be supported by sports organizations and policymakers. According to Gould & Carson (2008), the impact of economic status on physical fitness and performance can be mitigated by providing grants, funding scholarships, and ensuring access to necessary resources. Despite financial constraints, such efforts can support talent development and promote inclusivity.

Need for Study: Economic Status and Physical Fitness on Hockey Players

There are several reasons why it is essential to comprehend how hockey players' economic status and physical fitness interact. This section explains why this relationship needs to be studied and what the findings might mean for players, coaches, and sports organizations.

- 1. a. Disparities in Resource Access: Addressing Inequities in Sports Development Access to essential resources for athletic development and physical fitness is influenced by economic status. Training facilities, professional coaching, nutrition, and injury management are typically more readily available to players from higher-income families. Physical conditioning and performance outcomes can differ significantly as a result of this gap. We can identify and address these inequities by studying this relationship, resulting in more equitable development opportunities for all players, regardless of their economic status.
- **b. Increasing Accessibility:** Sports organizations can design inclusive programs that support players from less privileged backgrounds by understanding how economic factors affect physical fitness. Subsidized training programs, community-based support, and financial assistance for coaching and equipment could all benefit from the findings of this study. If these needs are met, hockey can become more inclusive and help level the playing field.
- **2. a. Optimizing Training Methods**: Improving Player Performance and Development Players' access to training and its quality can be influenced by their economic status. The study can provide insight into how different levels of resource access affect physical fitness and performance by examining this relationship. Coaches and trainers can use this information to tailor training programs to meet the specific needs and challenges of players from different economic backgrounds, thereby enhancing player development as a whole.
- b. Helping to Inform Performance Metrics: Hockey performance is closely linked to physical fitness. Understanding the disparities

in performance metrics between different economic groups can be made easier by determining how economic status influences fitness levels. This can lead to specific interventions to boost fitness and performance, especially for players who might be strapped for money.

3. Providing Direction for Program and Policy Development a. Creating Supportive Policies

Policies aimed at reducing the impact of economic disparities on sports participation and development can benefit from this study's findings. The insights can be used by policymakers to make policies that give all players equal opportunities, access to resources, and financial support. Fair competition and the removal of systemic obstacles may benefit from this.

b. Putting together programs that work

Based on the findings of the study, sports organizations can create specialized programs to support players from lower-income backgrounds. Scholarships, grants, and community outreach initiatives that provide access to essential resources could be included in programs. Programs can be more successful and have a greater impact if they are based on an understanding of the specific needs of players based on their economic status.

4. Contributing to More Comprehensive Socioeconomic Research

a. Recognizing More Comprehensive Implications

By highlighting how financial factors influence athletic development and performance, investigating the influence of economic status on hockey players' physical fitness contributes to broader socioeconomic research. The findings have the potential to influence research in other sports and areas of athletic development and can provide valuable insights into the relationship between socioeconomic status and sports participation.

b. Dealing with Social Problems

Additionally, this study has the potential to shed light on broader social issues associated with economic disparities in sports. The study can contribute to discussions on social equity, access to opportunities, and the role of sports in promoting social mobility and inclusivity by understanding how economic factors affect physical fitness and performance.

An Overview of the Issue: Hockey Players' Economic Status and Physical Fitness In the sport of hockey, physical fitness is essential for performing at their best and maintaining a competitive edge. However, there is growing concern that players' access to the resources they require for optimal physical conditioning is significantly influenced by their economic status. The fairness of the opportunities available to players from various economic backgrounds is seriously questioned by this disparity.

Problem Description

Hockey is a physically demanding sport that necessitates high levels of endurance, muscular strength, speed, agility, and flexibility. Although these qualities are necessary for effective performance on the ice, players' ability to develop and maintain these physical qualities is frequently influenced by their financial resources.

The Key Issues

- 1. Resources at a Glance: Players with more money typically have access to better training facilities, cutting-edge equipment, specialized coaching, and high-quality food. Players, on the other hand, who come from lower socioeconomic backgrounds might be restricted in these areas, which could potentially impede their physical growth and performance.
- 2. The level of physical fitness: Disparities in players' economic circumstances may result in varying degrees of physical conditioning. It may be difficult for athletes with fewer resources to attain the same cardiovascular endurance, strength, and agility levels as athletes with more money, which may affect their performance and overall development in the sport.
- 3. Results from performance: Economic status can have an impact on physical fitness levels and performance outcomes. When compared to players who have better access to training and support, those players may exhibit lower performance metrics, such as fewer goals, assists, and effective defensive plays.
- 4. Integrity and Equity: Concerns about hockey's equity and inclusivity are raised by the impact of economic status on physical fitness. Systemic barriers that prevent players from less privileged backgrounds from competing on an equal footing may limit the opportunities for advancement and success in the sport.

Significance of the Problem

Promoting equity and inclusion in hockey necessitates addressing the impact of economic status on physical fitness. Strategies for bridging the gap between players with different economic backgrounds can be developed with the help of an understanding of these dynamics, ensuring that all players have equal opportunities to reach their full potential. Policy modifications, program development, and support mechanisms aimed at making the sport more level playing field can all benefit from the insights gleaned from this research. The study aims to provide a comprehensive understanding of how economic status influences hockey players' physical fitness and performance, ultimately resulting in more equitable practices and opportunities. Recommendations: Economic Status and Hockey Players' Physical Fitness Based on the findings about how hockey players' economic status affects their physical fitness and performance, the following suggestions are made to reduce disparities and increase equity in the sport:

DISCUSSION

The findings, their significance, and the broader context of these issues are examined in the discussion section, which delves into the implications of the relationship between hockey players' economic status and physical fitness.

1. Access to Resources and Physical Fitness

The Effect of Economic Status: A player's access to essential training resources like cutting-edge equipment, specialized coaching, and high-quality facilities is heavily influenced by their economic status. Affluent players typically gain access to superior resources that improve their physical fitness. They can afford nutritionists, personal trainers, and gym memberships, all of which contribute to improved training and conditioning results. On the other hand, players from lower socioeconomic backgrounds might find it difficult to gain access to these resources, which could result in disparities in fitness levels.

Literature-Based Findings

Studies show that players tend to be less physically fit when they don't have access to professional support or training facilities. Take, for instance, the study by Eime *et al.*, 2013) demonstrates that differences in physical performance and conditioning are caused by economic disparities in access to sports facilities. Problems obtaining adequate nutrition and resources for recovery exacerbate these disparities (Dodge *et al.*, 2017). The results show that players' physical abilities and overall performance on the ice are significantly influenced by their economic resources.

2. Performance Metrics

Effects on Performance Outcomes In hockey, performance metrics like speed, endurance, strength, and agility are directly linked to physical fitness. In these areas, players who can afford better training and recovery resources frequently perform better. On-ice performance can be improved through improved physical fitness, as evidenced by faster skating speeds, improved endurance during games, and more effective defensive and offensive plays (Hoff *et al.*, 2002; Stone and others, 2007).

Differences in performance: Uneven performance outcomes can result from economic status-based disparities in physical fitness levels. It may be difficult for players from low-income families to compete at the same level as their peers who have better access to resources. As a result of this performance gap, they could lose out on opportunities for recognition and advancement in the sport.

3. Hockey's Equity and Inclusivity Obstacles to Inclusivity
The financial obstacles that players from less privileged
backgrounds face highlight significant obstacles to hockey's
inclusivity. Limited access to high-quality training, inadequate
nutrition, and fewer opportunities for skill development are
among these obstacles. To create a more welcoming environment
in which all players have an equal chance of success, it is essential
to remove these obstacles.

Need for Specific Treatments

Specifically targeted interventions are required to address these issues. Economic disparities can be mitigated by programs that offer nutritional support, financial assistance for coaching and equipment, and training subsidies. For players from all economic strata to have access to the resources they need to improve their physical fitness and performance, such initiatives are essential.

4. Implications for the Organization and Policy Recommendations

Policy changes that address sports' economic disparities are needed, according to the findings. Policies that encourage financial support for players from lower-income families should be considered by policymakers and sports organizations. This could include community-based programs, grants, and scholarships that give people access to training facilities, coaching, and other important resources.

Programming Creation

The lack of resources should be addressed through programs developed by sports organizations. Opportunities for mentorship, subsidized training camps, and community outreach initiatives are examples of these programs. Organizations can support players from various economic backgrounds and foster a more inclusive and competitive environment by focusing on equitable access to resources.

5. Impact on the social and economic environment

Beyond hockey, the connection between economic status and physical fitness reflects broader socioeconomic issues. It is possible to gain insight into other areas where financial resources impact performance and opportunities by understanding how economic factors influence athletic development. Discussions about social equity and the role that sports play in promoting social mobility can benefit from this broader perspective.

Future Directions for Research: Longitudinal studies should be looked into in future research to see how economic status affects athletic development and performance over time. Additionally, a more in-depth comprehension of the ways in which economic disparities influence sports participation and success may be provided by comparing studies conducted in various sports and regions.

CONCLUSION

The importance of economic status in determining hockey players' physical fitness and performance is brought up in the discussion. Players' opportunities and success are impacted by access disparities to resources, which result in significant differences in conditioning and performance outcomes. Promoting equity and inclusivity in the sport necessitates addressing these issues through specialized interventions, modifications to regulations, and programs that provide support. Stakeholders can help level the playing field and support the holistic development of all players by addressing economic obstacles and ensuring equitable access to resources. implementing these recommendations, stakeholders can work to reduce economic inequality and improve hockey players' physical fitness and performance from all socioeconomic backgrounds. These efforts will ensure that everyone has the chance to reach their full potential while also contributing to the overall development and success of players and promoting fairness and inclusivity in the sport. This study is needed for a number of reasons, including addressing critical issues related to sports development equity, maximizing player performance, directing

the creation of policies and programs, and contributing to socioeconomic research in general. The study aims to provide insights that can help bridge the gap between different economic groups and support hockey players' holistic development by examining the relationship between economic status and physical fitness. Researchers, coaches, sports organizations, and policymakers who want to make sports fairer and more inclusive will benefit from the findings. The structure of this research methodology makes it possible to investigate how hockey players' economic status affects their physical fitness and performance. The study aims to provide a comprehensive analysis of how economic factors influence athletic development and performance, offering insights for enhancing equity and support within the sport. It does this by combining quantitative and qualitative methods. The research demonstrates that hockey players' physical fitness and performance are significantly influenced by their economic status. Players' overall performance and physical fitness are strongly correlated with their access to resources like nutrition, coaching, training facilities, and other resources. Athlete growth and opportunities can be hindered by disparities in economic resources. For fostering equitable opportunities and enhancing performance across all economic backgrounds, it is essential to address these disparities through targeted interventions and support strategies.

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