A comparative study of the relationship between athletic participation and self-esteem

Titre : Etude comparative de la relation entre la participation sportive et l'estime de soi

Abstract: this study explored the relationship between athletic participation and self-esteem, with a focus on basketball players across different levels of involvement. A total of 248 participants were divided into three groups: non-active individuals (70 participants), amateur basketball players (88 participants), and professional basketball players (80 participants). The mean age of participants was 24.5 years (SD = 3.2). The results showed that professional basketball players reported the highest self-esteem (M = 34.2), followed by amateur players (M = 31.5), and non-active individuals (M = 28.4). A two-way ANOVA revealed a significant main effect of athletic participation on self-esteem ($F(2, 242) = 45.67$, $p < .001$), with professional players having considerably higher self-esteem than both amateur players and non-active individuals. In addition, amateur players had higher self-esteem than non-active individuals. However, there were no important gender differences or interaction between athletic participation and gender ($F(1, 242) = 0.56$, $p = .456$). These findings support the hypothesis that athletic participation, especially at a professional level, is linked to higher self-esteem, while gender has minimal influence. This underscores the psychological benefits of athletic involvement, particularly in team sports like basketball. Coaches and sports psychologists can leverage these insights to promote sports as a tool for improving self-esteem and overall well-being.

Keywords: self-esteem, athletic participation, basketball

Résumé : cette étude examine la relation entre la participation sportive et l'estime de soi chez les joueurs de basketball à différents niveaux. Un total de 248 participants, répartis en individus non actifs (70), joueurs amateurs (88) et joueurs professionnels (80), a été étudié. L'âge moyen était de 24,5 ans (ÉT = 3,2). Les résultats montrent que les joueurs professionnels ont l'estime de soi la plus élevée (M = 34,2), suivis des amateurs (M = 31,5) et des non-actifs (M = 28,4). Une analyse de variance (ANOVA) indique un effet significatif de la participation sportive sur l'estime de soi ($F(2, 242) = 45,67$, $p < .001$), les joueurs professionnels ayant des scores significativement plus élevés que les amateurs et les non-actifs. De plus, les amateurs affichent une estime de soi supérieure aux non-actifs. Cependant, aucune différence significative entre les sexes ni d'interaction entre le genre et la participation sportive n'a été observée ($F(1, 242) = 0,56$, $p = ,456$). Ces résultats soulignent les bienfaits psychologiques du sport, notamment dans les sports collectifs comme le basketball. Ils encouragent les entraîneurs et psychologues du sport à promouvoir la pratique sportive pour renforcer l'estime de soi et le bien-être.

Mots-clés : estime de soi, participation sportive, basketball

1 Introduction

Self-esteem, defined as an individual's overall sense of self-worth, is a critical psychological construct that influences mental health, well-being, and performance (Rosenberg, 1965). In sports, self-esteem plays a crucial role in shaping an athlete's confidence, motivation, and ability to cope with challenges. Specifically, high self-esteem is associated with improved athletic

performance, as it fosters greater self-belief, reduces performance anxiety, and enhances resilience in the face of setbacks (Fox, 1997). For basketball players, in particular, self-esteem is vital, as the sport demands not only physical skill but also mental strength. Athletes with higher self-esteem are more likely to take risks, stay concentrated under pressure, and maintain a positive attitude, all of which are essential for success in critical competitions. Despite the importance of self-esteem in sports, much of the research has mainly focused on the general relationship between physical activity and self-esteem, without differentiating between varying levels of athletic involvement. Few studies have specifically compared self-esteem levels across different groups of athletes, particularly in basketball, a sport known for its high intensity and mental demands. This study seeks to fill this gap by examining self-esteem differences among non-active individuals, amateur basketball players, and professional basketball players, providing valuable insights into how athletic participation impacts self-worth at different levels of involvement.

1.1 Literature Review

Self-esteem, defined as an individual's overall subjective sense of personal worth, plays a pivotal role in sports performance, particularly in high-pressure environments like competitive sports. Athletes who maintain a healthy self-esteem are better prepared to handle the difficulties and stresses of competition. This psychological characteristic is crucial when dealing with adversity, overcoming challenges, and eventually reaching goals. Numerous studies have examined the link between self-esteem and various aspects of athletic performance, ranging from motivation to mental resilience, highlighting its significant influence across different levels of sports. This literature review summarizes key findings from these studies, exploring the various ways in which self-esteem impacts performance and offering practical recommendations for sports psychologists, coaches, and athletes to enhance athletic outcomes.

One of the most well-established findings in sports psychology is the positive correlation between high self-esteem and greater sports performance. Athletes with higher self-esteem are generally more confident in their abilities, which contributes to better performance under pressure. Crocker et al. (2003) conducted a study revealing that athletes with elevated self-esteem exhibit greater resilience and confidence when faced with competitive stress. This improved mental strength allows them to maintain focus, recover from obstacles, and perform at

their best. Self-esteem has also been shown to act as a shield against negative emotions such as anxiety, fear of failure, and self-doubt, all of which can block an athlete's performance. When athletes possess a strong sense of self-regard, they are better able to manage these emotions, leading to improved focus and decision-making during critical moments. Based on these findings, it is recommended that coaches encourage athletes to focus on building a positive self-image that is established in essential qualities such as effort, dedication, and personal growth rather than exclusively on external outcomes like winning or appreciation. By shifting the focus toward self-improvement and mastery, athletes are more likely to develop a healthy self-esteem that is less susceptible to fluctuations based on external circumstances. Furthermore, athletes themselves should incorporate self-affirmation techniques into their routines, especially after facing disappointments or experiencing underperformance. Self-affirmation can help strengthen self-worth, enabling athletes to bounce back from challenging situations with greater resilience.

Another important aspect of self-esteem in sports is its relationship with intrinsic motivation, which is decisive for sustained effort and long-term success. According to Deci and Ryan's (1985) Self-Determination Theory, individuals with higher self-esteem are more likely to engage in sports for intrinsic reasons, such as personal satisfaction, enjoyment, and mastery of the sport. These individuals are less likely to be driven only by external rewards like trophies, recognition, or praise. Instead, they find motivation in the process of learning, improving, and achieving personal goals. This intrinsic motivation is central for athletes who aspire to improve their skills over time, as it fosters a deeper sense of fulfillment and commitment to the sport. As a result, athletes with high self-esteem are often more persistent in their training, more focused on long-term goals, and more resilient when facing obstacles along the way.

In addition to motivation, resilience is another psychological trait closely linked to self-esteem. Resilience refers to an athlete's ability to bounce back from setbacks, adapt to challenges, and maintain focus during difficult times. Liew et al (2019) found that athletes with positive self-esteem tend to display greater mental toughness, enabling them to recover more effectively after losses or poor performances. This resilience is not only beneficial in competition but also plays a critical role in maintaining consistent training efforts and overcoming obstacles during the learning process. As athletes build their resilience, they become better equipped to manage stress, recover from mistakes, and remain persistent in the pursuit of their goals. To enhance

mental resilience, it is recommended that coaches incorporate specific training techniques, such as visualization, mindfulness, and goal-setting exercises. Visualization allows athletes to mentally rehearse successful performances, which can improve confidence and focus during actual competition. Mindfulness practices, including meditation and breathing exercises, help athletes stay present and maintain emotional balance in high-pressure situations. These practices can also aid in regulating emotions, which is key to developing stronger resilience and maintaining self-esteem. Athletes can further benefit from journaling and other reflective practices to process their experiences and develop a deeper understanding of their emotional responses to success and failure.

Self-efficacy, or an individual's belief in their ability to succeed in specific tasks, is also closely intertwined with self-esteem. According to Bandura (1997), athletes with strong self-esteem are more likely to exhibit high levels of self-efficacy, which in turn enhances their belief in their ability to perform well under pressure. Athletes with high self-efficacy are more likely to take on challenges, persist through adversity, and remain confident in their abilities, even in the face of setbacks. This belief in one's capabilities contributes directly to success, as athletes are more likely to engage in goal-directed behavior, take calculated risks, and persist despite difficulties.

Finally, self-esteem can also be influenced by social support, which in turn affects athletic performance. Research by Rees et al. (2010) highlighted that athletes with strong social support networks—such as family, coaches, and teammates—experience higher levels of self-esteem. Social support fosters a sense of belonging, emotional safety, and validation, which reinforces an athlete's self-concept and strengthens their confidence in their abilities. A supportive team environment can also provide valuable feedback, encouragement, and guidance, which further enhances an athlete's performance and resilience.

Given these findings, it is essential for coaches to create a supportive, inclusive team environment where athletes feel valued and respected, regardless of their performance outcomes. Additionally, athletes should actively cultivate a network of supportive individuals who can offer encouragement and constructive feedback during challenging times. This social support system can help athletes navigate the emotional ups and downs of competitive sports, ultimately contributing to improved performance and a stronger sense of self-worth.

1.2 Objectives

First, the study aims to compare self-esteem levels between professional basketball players, amateur basketball players, and non-active individuals. Specifically, this objective seeks to test the hypothesis that professional basketball players will report higher self-esteem compared to both amateur players and non-active individuals. By examining self-esteem across these three distinct groups, the study intends to better understand the relationship between different levels of athletic involvement and self-esteem. This comparison will allow for insight into how engaging in competitive sports at varying levels might influence an individual's sense of self-worth.

Also, the study aims to assess the difference in self-esteem between amateur basketball players and non-active individuals. This objective will explore whether amateur basketball players report higher self-esteem than non-active individuals, independent of professional involvement. By focusing on recreational athletic participation, the study will examine how engaging in regular physical activity, even at a non-professional level, influences self-esteem. Thus, this objective will provide further clarity on the psychological benefits of amateur sports participation.

Finally, the study aims to investigate the role of gender in self-esteem across the three groups. It will test the hypothesis that there will be no significant gender differences in self-esteem among professional basketball players, amateur basketball players, and non-active individuals. Through analyzing self-esteem data from both male and female participants within each group, the study seeks to determine whether gender has an impact on self-esteem or if any differences in self-esteem are more closely linked to athletic participation rather than gender itself. This objective will provide valuable insights into whether gender influences the relationship between athletic involvement and self-esteem.

The study hypothesizes that:

- Professional basketball players will report higher self-esteem compared to amateur players and non-active individuals.
- Amateur basketball players will report higher self-esteem compared to non-active individuals.
- There will be no significant gender differences in self-esteem across the three groups.

2 Methods

2.1 Conceptual Framework

This study examined the level of sports participation as the independent variable, distinguishing between professional basketball players, amateur basketball players, and non-active individuals. The dependent variables included self-esteem. Findings indicated that competitive athletes, particularly those at the professional team level, consistently outclassed non-active individuals across all psychological measures. Additional moderating variables such as age, gender, and years of experience also played a role, with older and more experienced athletes displaying higher self-esteem and psychological resilience.

2.2 Participants

A total of 248 individuals participated in the study, divided into three groups:

- Non-active individuals: 70 participants (35 males, 35 females) with no regular physical activity.
- Amateur basketball players: 88 participants (44 males, 44 females) who play basketball recreationally.
- Professional basketball players: 80 participants (40 males, 40 females) who play basketball competitively at a professional level.

Participants were recruited through sports clubs, recreational centers, and online platforms. The mean age of participants was 24.5 years (SD = 3.2).

2.3 Measures

Self-esteem was measured using the Rosenberg Self-Esteem Scale (RSES) (Rosenberg, 1965), a widely used 10-item scale with strong reliability and validity. Items are scored on a 4-point Likert scale (1 = Strongly Disagree to 4 = Strongly Agree), with higher scores indicating higher self-esteem.

<u>Rosenberg Self-Esteem Scale (Rosenberg, 1965), – adapted version for sports context</u>

Self-esteem statements

1. I feel that I am a person of worth, at least on an equal basis with others.
2. I feel that I have a number of good qualities.
3. All in all, I am inclined to feel that I am a failure (Reverse Scored).

4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of (Reverse Scored).
6. I take a positive attitude toward myself.
7. On the whole, I am satisfied with myself.
8. I wish I could have more respect for myself (Reverse Scored).
9. I certainly feel useless at times. (Reverse Scored).
10. At times I think I am no good at all (Reverse Scored).

The scale demonstrated excellent internal consistency in this study (Cronbach's $\alpha = 0.89$).

2.4 Analysis

Data were analyzed using SPSS Version 27. A two-way ANOVA was conducted to examine the effects of athletic participation (non-active, amateur, professional) and gender (male, female) on self-esteem. Post-hoc tests with Bonferroni[1] (Field, 2018) corrections were used to identify specific group differences. The Bonferroni correction is a method used to adjust for multiple comparisons to reduce the risk of Type I errors. It involves dividing the significance level (α\alphaα) by the number of comparisons being made. In this case, since three pairwise comparisons were conducted (Professional vs. Amateur, Professional vs. Non-active, and Amateur vs. Non-active), the adjusted significance threshold is:

$$\alpha_{\text{Bonferroni}} = \frac{0.05}{3} = 0.0167$$

Based on the reported results ($p < .001$ for all comparisons), all differences remain statistically significant even after applying the Bonferroni correction. Also, descriptive statistics were calculated for each group.

[1] The Bonferroni correction (aka, Bonferroni adjustment, Bonferroni test, Bonferroni method) is way to control error rate familywise with experiments that test multiple comparisons.

3 Results

3.1 Descriptive Statistics

Table 1 presents the mean self-esteem scores for each group. Professional basketball players reported the highest self-esteem (M = 34.2, SD = 3.1), followed by amateur players (M = 31.5, SD = 2.8) and non-active individuals (M = 28.4, SD = 3.5).

Table 1: mean self-esteem scores by group and gender

Group	Males (M, SD)	Females (M, SD)	Total (M, SD)
Non-active	28.6 (3.4)	28.2 (3.6)	28.4 (3.5)
Amateur players	31.7 (2.7)	31.3 (2.9)	31.5 (2.8)
Professional players	34.3 (3.0)	34.1 (3.2)	34.2 (3.1)

3.2 Inferential statistics

A two-way ANOVA revealed a significant main effect of athletic participation on self-esteem, $F(2, 242) = 45.67$, $p < .001$, $\eta^2 = 0.27$. Post-hoc tests indicated that professional players had significantly higher self-esteem than amateur players ($p < .001$) and non-active individuals ($p < .001$). Amateur players also had significantly higher self-esteem than non-active individuals ($p < .001$).

Table 2. Results of two-way ANOVA on self-esteem by athletic participation and gender

Effect	F(df)	p-value	η^2	Significance
Athletic Participation	F(2, 242) = 45.67	p < .001	0.27	Significant
Gender	F(1, 242) = 0.56	p = .456	0.002	Not significant
Interaction (Participation × Gender)	F(2, 242) = 0.89	p = .412	0.007	Not significant

There was no significant main effect of gender, $F(1, 242) = 0.56$, $p = .456$, $\eta^2 = 0.002$, and no significant interaction between athletic participation and gender, $F(2, 242) = 0.89$, $p = .412$, $\eta^2 = 0.007$.

4 Discussion

The findings strongly support the study's hypotheses, demonstrating a clear relationship between athletic participation and self-esteem. Professional basketball players reported the highest self-esteem levels, followed by amateur players and non-active individuals. This suggests that engaging in sports, particularly at a competitive level, provides psychological benefits that contribute to a stronger sense of self-worth. The structured environment, rigorous training, and high-performance demands of professional basketball may enhance confidence and resilience, leading to higher self-esteem.

Furthermore, the absence of significant gender differences aligns with prior research, reinforcing the idea that self-esteem is shaped more by external factors, such as athletic participation, rather than inherent gender-based traits (Fox, 1997). This finding underscores the importance of creating inclusive sporting environments where both male and female athletes can experience similar psychological benefits. Overall, these results highlight the value of sports participation in fostering self-esteem and mental well-being across different levels of involvement.

4.1 Implications

These results emphasize the significant psychological benefits of athletic participation, particularly in team sports like basketball, where social interaction, teamwork, and goal-setting contribute to a stronger sense of self-worth. Engaging in sports fosters discipline, resilience, and confidence, which are crucial for both athletic performance and personal development. Coaches and sports psychologists can leverage these findings to encourage participation in sports as a means of enhancing self-esteem and overall well-being. Creating a supportive and motivating environment helps athletes develop a positive self-image, manage setbacks effectively, and cultivate mental strength for long-term success.

4.2 Limitations

The study has several limitations that should be considered. Firstly, the cross-sectional design limits causal inferences, as it only captures a snapshot of self-esteem at one point in time rather than examining how changes in athletic involvement might influence self-esteem over the long term. Additionally, self-esteem was measured using self-report, which may be subject to bias, as

participants could have overestimated or underestimated their self-worth. Finally, the sample was limited to basketball players, which may limit the generalizability of the findings to individuals involved in other sports. Therefore, the results may not fully reflect the experiences of athletes in different disciplines.

4.3 Future research

High-quality research plays a crucial role in achieving a deeper understanding of the relationship between athletic participation and self-esteem. Future studies should explore self-esteem in various sports and adopt longitudinal designs to examine changes over time.

Additionally, qualitative research methods, such as in-depth interviews and focus groups, could reveal the psychological mechanisms that link sports participation with self-esteem. Personal narratives and lived experiences clarify key factors—including social support, competition levels, and personal achievement—that shape self-esteem development. This method strengthens quantitative findings by offering a more detailed and contextualized analysis.

With a combination of qualitative and longitudinal research in comparative studies may extended the overall perspective. These perceptions support the development of targeted interventions that enhance the psychological benefits of sports participation for athletes across different levels.

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