



Research Article

Psychological Factors and Performance in Basketball: The Correlation between Motivation, Basic Needs, and Commitment

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Abstract

This research investigates the intricate correlation among motivation, fundamental psychological needs, and commitment in basketball players, using a cross-sectional survey methodology. Data were gathered from a sample of athletes using standardized questionnaires that evaluated intrinsic and extrinsic motivation levels, psychological needs fulfilment, and other commitment characteristics. Findings demonstrate that moderate motivation levels are associated with enhanced resilience and a less likelihood of burnout, hence promoting continued participation in sports. Athletes indicated elevated levels of competence and relatedness, highlighting the significance of situations that satisfy fundamental psychological needs. Elevated commitment levels correlated with satisfaction, worthwhile opportunities, and social support, so strengthening their function in cultivating devotion. Gender-based differences indicated distinct motivational orientations, suggesting that customized assistance might improve performance and satisfaction for both male and female athletes. Differences in commitment across competition levels indicated that players in less competitive leagues exhibited greater dedication, presumably owing to reduced stressors. This study emphasizes the need of fostering psychological well-being and social support to maintain commitment and resilience, providing essential insights for coaches and sports psychologists in developing motivating environments that enhance athlete performance and long-term well-being.

Keywords: Basketball Athletes; Motivation Levels; Psychological Needs Satisfaction; Commitment; Intrinsic and Extrinsic Motivation; Social Support.

Introduction

The relationship between motivating conditions and the fulfillment of psychological needs illustrates that players' motivation is intricately linked to their commitment to basketball. Athletes' motivation is enhanced, and their dedication to the sport is strengthened in environments that promote individual accomplishments and recognize achievements [1]. For example, basketball players who perceive recognition within their team

dynamics often develop greater resilience, enabling them to better handle challenges [2]. This framework suggests that intrinsic drive is fostered through critical psychological needs: autonomy, competence, and meaningful relatedness. These factors further solidify players' commitment to basketball [3]. Teixeira et al. emphasize that providing players with the ability to control their actions and participation enhances autonomy, competence is supported by acknowledging skill development, and relatedness is fostered through strong bonds with coaches and teammates [4]. When these psychological needs are adequately satisfied, players are more likely to draw motivation from self-improvement, which is vital for maintaining long-term commitment to basketball [4].

Intrinsic motivation also plays a crucial role in developing resilience and perseverance. Roberts et al. argue that athletes driven by an internal desire for self-betterment, rather than external rewards, demonstrate stronger commitment [5]. In competitive environments like basketball, where external rewards may be insufficient to sustain an athlete's dedication, intrinsic motivation becomes essential [6]. This long-term commitment to basketball is rooted in intrinsic factors such as personal satisfaction and a passion for the sport [5]. Furthermore, athletes' commitment is shaped by their mental competencies and motivational orientations [7]. Cucui and Cucui contend that athletes who develop mental skills aligned with their intrinsic motivation typically show enhanced focus and a greater commitment to self-improvement, reinforcing their engagement in the sport [6]. Similarly, Šimková and Válková find that junior basketball players' loyalty to the sport is often strengthened through enjoyable experiences and a cooperative team environment [8]. Basketball players who thrive in supportive settings that address their needs for autonomy, competence, and relatedness are more likely to experience intrinsic motivation, ultimately leading to sustained commitment [1].

The performance and experiences of basketball athletes are influenced by a range of psychological factors, including motivation, mental preparedness, emotional regulation, and social support [9]. These factors shape athletes' ability to overcome challenges, manage stress, and engage fully with their sport, especially in high-pressure competitive settings [10, 11]. Understanding and optimizing these psychological aspects are vital for maximizing athlete performance in both competitive and broader contexts [12].

Motivation, in particular, drives basketball players to persist, develop, and fully immerse themselves in their sport [13]. Environments that foster intrinsic motivation focusing on personal growth and skill development rather than mere victory enhance performance by promoting satisfaction and resilience [10]. Conversely, a competition-driven atmosphere that prioritizes outperforming others can increase anxiety and diminish satisfaction, especially in the face of adversity [14]. Basketball players with a strong inclination toward skill development and learning report higher levels of satisfaction and sustained performance, while those primarily motivated by outperforming peers may experience increased anxiety during competitions [10]. Furthermore, a focus on personal growth promotes resilience, enabling players to recover from setbacks and maintain a mindset oriented toward long-term improvement [15].

Mental readiness is another key psychological skill in basketball, requiring athletes to maintain focus, regulate emotions, and exhibit resilience in demanding situations. Techniques such as mental imagery, self-talk, and relaxation strategies are foundational for building confidence and concentration [11]. Mental visualization, in particular, allows athletes to mentally rehearse successful actions, boosting self-efficacy and reducing performance-related

anxiety [9]. Athletes who practice these techniques are better equipped to handle pressure, maintain cognitive clarity, and recover quickly from mistakes [16]. Stress management, closely tied to mental readiness, is essential for maintaining consistency and adaptability in basketball. Stress can impair cognitive clarity and physical precision, making effective coping mechanisms critical for optimal performance under pressure [9]. Basketball players who use mindfulness and relaxation techniques manage emotions better, stay focused, and reduce mental barriers, resulting in improved performance and fewer mistakes [17].

The social environment, including support from coaches, teammates, and family, significantly influences basketball players' motivation, commitment, and well-being. Positive social support fosters a sense of belonging, which is essential for building resilience and drive. Athletes who perceive their coaches as supportive and who develop strong bonds with teammates are more likely to remain committed to their sport and persevere through challenges [12]. When players' psychological needs for autonomy, competence, and relatedness are fulfilled through social support, they generally demonstrate higher levels of well-being, motivation, and performance. Such supportive environments enhance individual performance and strengthen team dynamics [18]. Coaches, in particular, have a significant impact on both individual athletes and the overall team. By providing consistent and constructive feedback and fostering open communication, basketball coaches create a climate of trust that enhances players' learning experiences and reinforces team cohesion [19]. Athletes often develop a strong sense of inclusion within their teams, which translates into increased motivation and improved performance as they become more dedicated to the team's collective success [20].

Emotional stability and mental toughness directly influence basketball players' ability to manage stress and maintain consistent performance. Emotional regulation helps athletes sustain focus and make rational decisions under pressure [21]. The ability to manage emotions is crucial for navigating the highs and lows of competitive sports, as maintaining composure is essential for peak performance [22]. Mental toughness, characterized by the ability to endure stress and persist through adversity, is a vital psychological skill in basketball. It enhances players' ability to meet both physical and psychological demands with confidence and agility [23]. Players who manage stress effectively are more likely to sustain high performance in challenging situations. Techniques such as controlled breathing and relaxation training can help athletes maintain calmness, supporting precise decision-making and reducing mental fatigue during critical moments [24]. Resilience, fostered through positive self-talk and goal setting, enables athletes to recover quickly from errors and reengage with confidence, which is vital for maintaining agility and composure in competitive scenarios [25]. In basketball, resilience allows players to focus on the game despite mistakes, turning potential failures

into opportunities for growth [15].

The connection between psychological well-being and athletic performance is pivotal for understanding how basketball players can achieve both personal fulfillment and optimal performance [26]. Key psychological processes not only influence players' performance under pressure but also contribute to their overall well-being and commitment to the sport [27]. For basketball athletes, addressing mental processes alongside physical training ensures a comprehensive approach that supports both competitive success and personal satisfaction [28].

Consistent with Self-Determination Theory (SDT), fulfilling basic psychological needs—autonomy, competence, and relatedness promotes intrinsic motivation, a critical factor for athletes' well-being. When these needs are met, athletes are more likely to pursue mastery goals, increasing their motivation and enjoyment of the sport [28]. Autonomy, particularly within the context of basketball, where individual accountability and team dynamics converge, helps athletes remain motivated over time, which is essential for both well-being and sustained performance [29]. Additionally, intrinsic motivation drives players' adherence to training routines and dedication, linking emotional satisfaction to their ability to recover both in sports and in life [30]. By fostering internal control, athletes are better equipped to navigate stress, maintain focus, and prevent burnout. Fulfillment of psychological needs not only enhances motivation but also builds resilience and long-term commitment to basketball [31].

Anxiety in high-performance basketball contexts can have both positive and negative effects on performance, depending on how it is managed. Uncontrolled anxiety often reduces self-confidence and impairs performance [27]. However, when athletes sustain their confidence, anxiety can serve as a motivational force, sharpening focus and determination. Self-confidence is particularly critical under pressure, enabling athletes to use anxiety constructively rather than letting it hinder their concentration and mental acuity [32]. Psychological traits such as resilience and self-confidence are essential for managing the stress of competitive performance. Athletes with stable psychological traits are better equipped to confront the mental challenges inherent in competitive basketball [32]. Mental toughness is thus a key factor in navigating both internal and external pressures, promoting consistency and focus during competition [33].

Additionally, the ability to understand and regulate emotions is essential for optimising performance and preserving mental health. In 2019, Borysova et al. concluded that emotional intelligence improves team dynamics by facilitating enhanced communication and cohesiveness, as well as by assisting basketball players in maintaining composure under duress [34]. This theory posits that players who are more adept at self-evaluation and emotional control are more likely to succeed; this is due to their ability to

manage failings in the game and maintain a positive attitude. Moreover, emotional intelligence aids athletes in building resilience by enabling them to manage their emotional peaks and troughs effectively, which is crucial in sports [35]. In basketball, resilience acts as a safeguard for mental health, as players must handle considerable physical and psychological stress. This capability helps them preserve their health and well-being amidst intense competition and tackle obstacles with optimism [36].

Another significant psychological process that significantly influences psychological health and performance is the correlation between mental fortitude and physical readiness. Practically, physical conditioning not only enhances endurance but also supports athletes' mental readiness, allowing them to face physical and mental challenges with greater confidence [37]. So, a physically prepared athlete experiences lower levels of fatigue, which helps maintain cognitive sharpness and emotional control, both of which are necessary for optimal decision-making and resilience during games. Moreover, sports psychology therapies aimed at cultivating mental resilience and physical robustness lay the foundation for enhanced self-esteem and internal equilibrium, which in turn boosts well-being alongside performance. According to Khan-Vilkar and Vyas, taking all factors into account, better mental health allows athletes to find a balance among their competitive goals, long-term growth, and personal satisfaction [36]. Rodrigues et al. said that training programs must integrate psychological support, motivational techniques, and mental conditioning with physical exercise to optimize athletic performance [36]. Ugoani asserts that mental training is crucial for athletes to cultivate concentration, resilience, and stress management strategies, which profoundly influence performance [38]. In other words, mental techniques like goal-setting and self-talk are useful for boosting an athlete's confidence and poise, which are essential for optimal performance, particularly while under duress [39]. Nonetheless, coaches play a key role in establishing an atmosphere that encourages players' independence and drive for success.

So, athletes who perceive their coaches as supportive of their autonomy and skill development are more likely to adopt mastery-oriented goals [40]. Such a motivational climate encourages intrinsic motivation, as athletes feel that they are working toward personal growth and skill mastery rather than simply seeking external rewards. Therefore, coaches' commitment is linked to positive team performance, suggesting a reciprocal relationship where both coach and athlete benefit from a supportive, athlete-centered approach [41].

Furthermore, fulfilling the fundamental psychological requirements of athletes namely autonomy, competence, and relatedness is crucial for their commitment and overall well-being. Consequently, athletes who perceive that their psychological needs are satisfied demonstrate elevated engagement levels and a diminished likelihood of experiencing burnout [42]. When

coaches implement autonomy-supportive strategies and foster a sense of relatedness within the team, athletes are more inclined to remain dedicated to their training regimens. In addition, young athletes flourish when they receive encouragement from both coaches and peers, underscoring the significance of a unified team atmosphere in promoting sustained motivation and contentment [43]. In summary, the cultivation of psychological competencies such as adaptability, mental resilience, and concentration is imperative for athletes confronting competitive pressures. Under such circumstances, high-potential athletes derive substantial benefits from training regimens that integrate psychological skill enhancement into their routine practices [44]. Competitive scenarios and pressure simulations are methodologies that can help athletes improve their mental fortitude and adaptability, thereby enabling them to overcome the unpredictable challenges that arise during actual competitions. Training programs should prioritise the development of the necessary psychological preparedness to optimise athletes' performance across a variety of conditions, in addition to the development of physical capabilities, by emphasising this [45].

The triadic model of motivation suggests that athletes' commitment to performance is enhanced by a harmonic approach to internal and extrinsic motivation, therefore realizing this goal [38]. Therefore, coaches may foster this balance by providing positive comments that acknowledge work and development, therefore fulfilling players' extrinsic goals for recognition as well as their natural drive for personal success. Furthermore, athletes' ability to control performance anxiety and maintain good mental health depends much on the continuous help of their teammates [46]. Under this perspective, resilience, anxiety control, and self-efficacy are key psychological factors influencing performance outcomes; a strong support system will help athletes negotiate these obstacles. Similarly, social support bolsters both academic and athletic performance, indicating that a nurturing training environment can assist athletes in managing stress and maintaining concentration under duress [47]. In general, athlete engagement, characterized by enthusiasm, commitment, and immersion in training, is vital for consistent performance and enduring success [42]. Nevertheless, this specific degree of commitment is frequently jeopardized by burnout, a phenomenon that can be alleviated by addressing athletes' fundamental psychological needs and organizing training schedules that facilitate rest and recuperation [48]. One of the most effective solutions within this paradigm may be the incorporation of psychological and motivational techniques into training programs that empower athletes to achieve peak performance while safeguarding their well-being [29]. Thus, coaches who align training methodologies with these athletes' requirements foster an environment that cultivates motivation and resilience [35].

This study aims to address critical gaps in the existing literature by focusing on the psychological processes that influence the

experiences and performance of basketball athletes. While previous research has extensively highlighted the role of motivation, psychological needs, and commitment in sports performance, limited empirical studies have specifically examined how these factors interact within the unique context of basketball. By exploring the interplay between motivation, the fulfillment of basic psychological needs (autonomy, competence, and relatedness), and commitment, this study provides a nuanced understanding of the factors driving intrinsic motivation, athlete well-being, and sustained engagement in basketball. The findings of this research contribute to the literature in three significant ways: First, this study applies Self-Determination Theory (SDT) to basketball, elucidating the impact of psychological needs on motivation and commitment in high-pressure sports contexts. Furthermore, it provides actionable recommendations for coaches and sports psychologists to cultivate supportive environments that promote intrinsic motivation, resilience, and long-term athlete development. Lastly, by focussing specifically on basketball athletes, the research fills a gap in existing literature that frequently generalises findings across various sports without accounting for the distinct psychological and environmental challenges inherent to team-based sports like basketball. This study aims to connect theoretical frameworks with practical applications, offering evidence-based insights to enhance coaching techniques and athlete support programs.

Materials and Methods

Participants

The methodological approach employed in this research was quantitative, as obtaining precise measurements and objective data was essential for establishing correlations among the variables under investigation. The variables examined pertained to the motivation, commitment, and fundamental needs of the athletes. Additionally, the study utilized a correlational design to examine the interrelationships among the variables and was synchronic in nature, with data collection taking place at a single point in time [49]. The study specifically targeted basketball athletes across various levels of competition, including amateur, semi-professional, and professional players. Participants were included based on the following criteria: (1) they were active basketball players at the time of data collection, (2) they had at least one year of continuous experience in competitive basketball, and (3) they were aged between 16 and 35 years. Athletes who were not actively competing or who had less than one year of basketball experience were excluded to ensure a focus on consistent engagement with the sport. The sampling method utilized was convenience sampling, aimed at swiftly assembling a readily accessible sample. However, it is important to note that a convenience sample, which lacks probability, cannot be deemed representative [50]. Nonetheless, within the parameters of this study, the sample was deemed

sufficiently adequate. The study encompassed a total of 423 basketball athletes.

Measures

Data for the survey were gathered through a Google Forms questionnaire. Initially, the questionnaire comprised six closed-ended demographic inquiries. These questions solicited information regarding gender, age, educational attainment, marital status, competitive classification, and years of participation in a basketball team. Next, 33 closed-ended questions on a 5-point Likert scale ranging from 1-Agree to 5-Agree were used to measure motivation. The questions were based on the Perceived Motivational Climate in Sport Questionnaire-2 tool (PMCSQ-2). To measure the athletes' basic needs, 20 closed-ended questions on a 7-point Likert scale from 1-Agree to 7-Agree were used to measure the athletes' basic needs [51]. The questions led to the scales: competence, Choice, Internal perceived locus of casualty (IPLOC), Volition and Relatedness. The scales were measured using the Basic Needs Satisfaction in Sport Scale tool (BNSSS) [51]. To measure Commitment, 55 closed-ended questions were used on a 5-point Likert scale from 1-Agree to 5-Agree. The questions led to the scales Sports Commitment, Valuable Opportunities, Other priorities, Personal Investments-Loss, Personal Investments-Quantity, Social constraints, Social Support-Emotional, Social Support-Informational, Excel-Mastery Achievement, Desire to Excel-Social Achievement, Enthusiastic Commitment and Constrained Commitment. The questions were based on the Sport Commitment Questionnaire-2 tool [52].

Procedure

The data collection was done in November 2024. The survey was online and participants completed the questionnaire through a special link. Responses were collected on the Google Forms platform and then, after completion, were saved in an Excel file for analysis. It should be noted that participants were informed before taking part in the survey through an information form and participated voluntarily and knowingly after giving their own consent.

Data Analysis

Data analysis was done with SPSS 25.0.0. Initially, the answers were coded and the variables of the questionnaire were produced. Descriptive statistical analysis was then performed and tables and graphs were produced to present the demographics and levels of survey variables. Next, reliability testing was performed through Cronbach's alpha index and distribution test via Kolmogorov-Smirnov test. For the first and second research questions, correlation analysis was performed through Spearman's s index. The choice of a nonparametric correlation index was made as it was found that the data of all variables did not follow the normal distribution. Thus, a non-parametric test was preferred, which does not require assumptions such as regularity and homoscedasticity. For the third research question, the Mann-Whitney U test and Kruskal Wallis test were used. Initially, it is noted that in the case of the third research question, non-parametric methods were selected since there was no normal distribution in the data. In addition, the Mann-Whitney test was used for demographic variables such as gender which contained up to two categories. Similarly, the Kruskal Wallis test was used for demographic variables such as sports category which contained more than two categories. The significance level was 0.05.

Results

According to the analysis, the survey sample was based on 423 people in total. Out of this total, 279 people (66%) reported being male and another 144 people (34%) reported being female. When asked about the category in which the participants participated during the 2023-2024 sports season, 50.4% ($n = 213$) stated that they participated in the A2 Elite League Women. At the same time, however, 17% ($n = 72$) stated that they participated in the A1 Basket League Women and 14.7% stated that they participated at the amateur level. Finally, the sample was asked to indicate the years they participated in basketball teams. According to the analysis, 64.5% ($n = 273$) responded that they were a member of a basketball team from 11 to 15 years. Also, 13% ($n = 55$) noted that they were a member from 6 to 10 years and 13.2% ($n = 56$) noted that they were a member from 1 to 5 years, as shown in (Table 1).

| Demographic | Percentage (%) | Frequency (N) |
|--|----------------|---------------|
| Gender | | |
| Male | 66.0 | 279 |
| Female | 34.0 | 144 |
| Age (years) | | |
| 16-22 | 66.2 | 280 |
| 23-27 | 14.2 | 60 |
| 28-32 | 9.0 | 38 |
| 33-37 | 5.2 | 22 |
| 37+ | 5.4 | 23 |
| Educational level | | |
| High school diploma | 76.8 | 325 |
| Diploma of Vocational Education and Training / Accreditation | 3.5 | 15 |
| University degree | 9.6 | 83 |
| Marital status | | |
| Single | 90.5 | 383 |
| Married | 8.0 | 34 |
| Divorced | 1.4 | 6 |
| Category of competence for athletic period 2023-2024 | | |
| A1 Basket League Women | 17.0 | 72 |
| A2 Elite League Women | 50.4 | 213 |
| National League 1 | 12.8 | 54 |
| National League 2 | 5.2 | 22 |
| Amateur level | 14.7 | 62 |
| Years as a basketball team member | | |
| 1-5 | 13.2 | 56 |
| 6-10 | 13.0 | 55 |
| 11-15 | 64.5 | 273 |
| 16-20 | 5.9 | 25 |
| 20+ | 3.3 | 14 |

Table 1: Demographics distribution.

Cronbach's alpha was used for the reliability of the survey variables. The index should be above 0.7 to result in levels of satisfactory reliability. For the Motivation variable, the index returned a value equal to 0.887, which is very satisfactory. For the Basic needs in sports variable, five factors were used, all of which had reliability [53]. For the Sports Commitment variable, 12 factors were used, which indicated a reliable result overall (Table 2).

| Factor | Cronbach's Alpha | N of Items |
|------------|------------------|------------|
| Motivation | .887 | 33 |
| Competence | .928 | 5 |
| Choice | .873 | 4 |

| | | |
|-------------------------------------|------|---|
| IPLOC | .881 | 3 |
| Volition | .776 | 3 |
| Relatedness | .923 | 5 |
| Enjoyment | .911 | 4 |
| Valuable Opportunities | .857 | 4 |
| Other priorities | .869 | 5 |
| Personal Investments-Loss | .880 | 5 |
| Personal Investments-Quantity | .871 | 3 |
| Social constraints | .744 | 4 |
| Social Support-Emotional | .878 | 4 |
| Social Support-Informational | .757 | 5 |
| Desire to Excel-Mastery Achievement | .890 | 6 |
| Desire to Excel-Social Achievement | .873 | 5 |
| Enthusiastic Commitment | .837 | 5 |
| Constrained Commitment | .804 | 5 |

Table 2: Variable reliability.

Levels of variables

According to the analysis, the motivation variable had a minimum value of 1 and a maximum value of 5. The mean value of the variable reached 3.43 points with a standard deviation of 0.47 points. Therefore, the motivation levels of the athletes in the study sample were mainly moderate. Five factors were used for the variable Basic needs in sports.

For the Competence factor, it was found that the relevant variable had a minimum value of 1 and a maximum value of 7. The average value of the variable reached 5.15 points with a standard deviation of 1.30 points. Therefore, levels for the Competence variable in the athletes in the survey sample were slightly high primarily. For the Choice factor, the minimum was 1 and the maximum was 7. The average was 4.29 points with a standard deviation of 1.41 points. Thus, Choice's levels were modest. For Internal perceived locus of causality (IPLOC), the minimum value reached 1 and the maximum reached 7. The average price stood at 5.38 points with a standard deviation of 1.46 points. Therefore, Internal perceived locus of causality (IPLOC) levels were slightly high. For Volition, its minimum value was 1 and maximum 7. The average price reached 4.75 points and the standard deviation 1.02 points. Based on these values, Volition's levels were moderate.

For the Sports Commitment variable, 12 factors were used. For the Sport Enjoyment factor, its average price reached 4.20 points with a standard deviation of 0.92 points. Therefore, the levels of Sport Enjoyment were high.

For Valuable Opportunities, the minimum value was 1 and the

maximum was 5. The mean was 4.03 points and the standard deviation 0.92 points. So, the levels for Valuable Opportunities were high.

For the Other priorities factor, the average reached 3.04 points with a standard deviation of 0.97 points. Therefore, the levels for other priorities were modest.

For the Personal Investments-Loss factor, the average price reached 3.67 points with a standard deviation of 0.91 points. Therefore, Personal Investments-Loss levels were modest. The Personal Investments-Quantity factor had a minimum value of 1 and a maximum value of 5. The mean value was 4.13 points and the standard deviation 0.88 points. Thus, Personal Investments-Quantity levels were high. The Social constraints factor had a minimum value of 1 and a maximum value of 5. The average value of the variable reached 3.12 points with a standard deviation of 0.91 points. Therefore, social constraint levels in athletes were mostly modest.

For the Social Support-Emotional factor, the minimum was 1 and the maximum was 5. The average price reached 3.84 points with a standard deviation of 0.96 points. Therefore, Social Support-Emotional levels were slightly high in the sample. The Social Support-Informational agent had a minimum value of 1 and a maximum value of 5. The average value was 3.56 points with a standard deviation of 0.82 points. So Social Support-Informational levels were slightly high.

For the Desire to Excel-Mastery Achievement factor, the average value reached 4.00 points. Therefore, the Desire to Excel-Mastery Achievement levels for the sample were high. For the Desire to

Excel-Social Achievement factor, the minimum value was 1 and the maximum value was 5. The average reached 3.90 points with a standard deviation of 0.85 points. Therefore, Desire to Excel-Social Achievement levels were high. The Enthusiastic Commitment factor had a mean of 3.94 points and a standard deviation of 0.87 points. Thus, Enthusiastic Commitment levels were high. For the Constrained Commitment agent, the minimum value reached 1 and the maximum value reached 5. The mean was 2.49 points with a standard deviation of 0.96 points. Therefore, Constrained Engagement levels were moderate to slightly low (Figures 1-3).

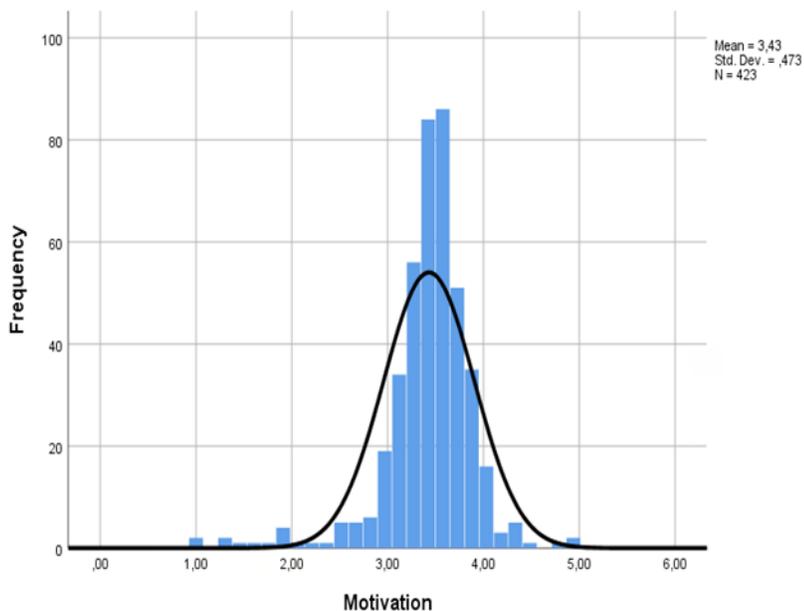


Figure 1: Histogram for Motivation

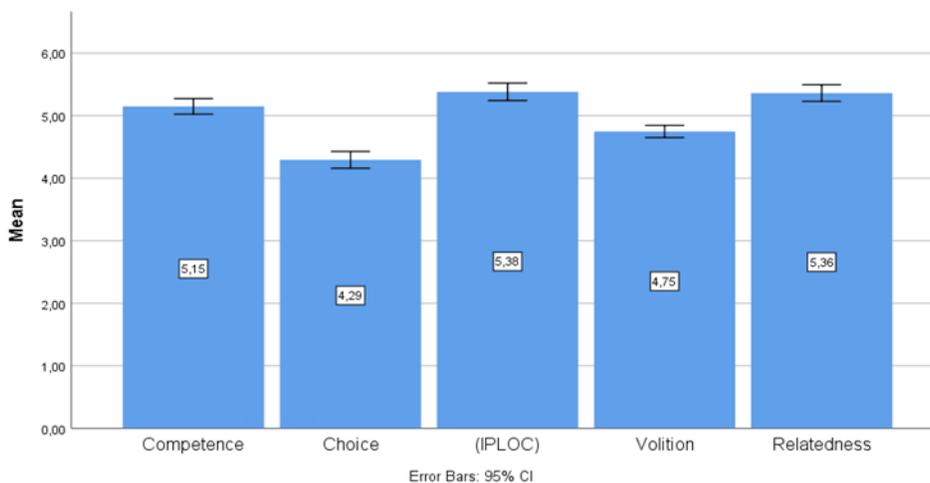


Figure 2: Simple Bar Mean of Competence, Choice, Internal perceived locus of causality (IPLOC), Mean of Volition, Mean of Relatedness by INDEX.

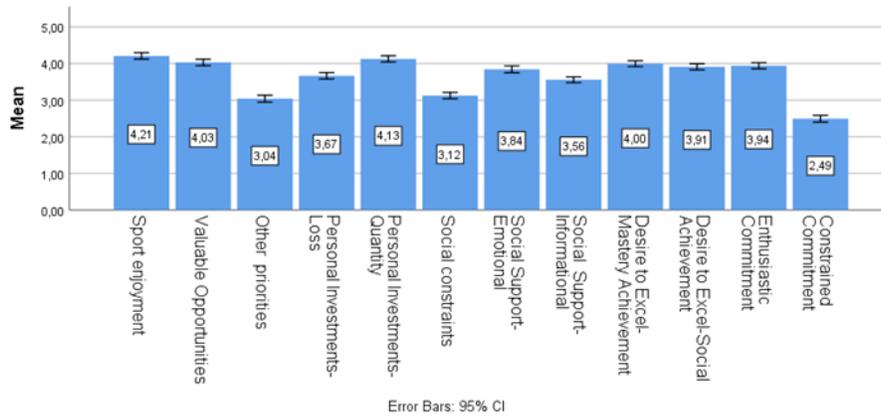


Figure 3: Simple Bar Mean of Sport enjoyment, Valuable Opportunities, Other priorities, Personal Investments-Loss, Personal Investments-Quantity, Social constraints, Social Support-Emotional, Social Support-Informational, Desire to Excel-Mastery Achievement, Desire to Excel-Social Achievement, Enthusiastic Commitment, Constrained Commitment.

Checking the distribution of variables

The Kolmogorov-Smirnov test was used to test the distribution of variables. The sample was larger than 50 subjects in total and hence this test was chosen. Note that in case of non-statistically significant results, the distribution of the data of the tested variable is considered to approximate normal. According to the results, the Motivation variable does not follow the normal distribution ($K-S(N = 423) = .139, p < .01$). In all cases of the factors of the Basic needs in sports variable, a statistically significant result was returned ($p < .01$). Therefore, the data for all factors of the Basic needs in sports variable do not follow the normal distribution. In all cases of the factors of the Basic needs in sports variable, a statistically significant result was returned ($p < .01$). Therefore, the data of all the factors of the variable Basic needs in sports do not follow the normal distribution. According to the results, in all cases of the factors of the variable Sports Commitment, a statistically significant result was returned ($p < .01$). Therefore, the data of all factors of the variable Sports Commitment do not follow the normal distribution (Tables 2,3).

| | Kolmogorov-Smirnov | | |
|--|--------------------|-----|------|
| | Statistic | df | Sig. |
| Motivation | .139 | 423 | .000 |
| Choice | .063 | 423 | .000 |
| Internal perceived locus of causality (IPLOC) | .146 | 423 | .000 |
| Volition | .208 | 423 | .000 |
| Relatedness | .119 | 423 | .000 |

Table 2: Checking the distribution of variables.

| | Kolmogorov-Smirnov | | |
|----------------------------------|--------------------|-----|------|
| | Statistic | df | Sig. |
| Sport Enjoyment | .194 | 423 | .000 |
| Valuable Opportunities | .146 | 423 | .000 |
| Other priorities | .083 | 423 | .000 |
| Personal Investments-Loss | .119 | 423 | .000 |

| | | | |
|--|------|-----|------|
| Personal Investments-Quantity | .178 | 423 | .000 |
| Social constraints | .072 | 423 | .000 |
| Social Support-Emotional | .149 | 423 | .000 |
| Social Support-Informational | .099 | 423 | .000 |
| Desire to Excel-Mastery Achievement | .131 | 423 | .000 |
| Desire to Excel-Social Achievement; | .115 | 423 | .000 |
| Enthusiastic Commitment | .147 | 423 | .000 |
| Constrained Commitment | .108 | 423 | .000 |

Table 3: Checking the distribution of variables.

Correlations between Motivation and Commitment

Spearman’s rho was used to investigate the Commitment correlation, as all the related variables did not follow the normal distribution. According to the results, in all cases of the correlations between the Motivation variable and the factors of the Commitment variable, a statistically significant result was returned ($p < .05$). The correlations were positive and weak. Therefore, it is concluded that as the levels of the Motivation variable increase, the levels of the Commitment variable increase and vice versa (Table 4).

| | M | SO | VO | OP | PIL | PIQ | DC | SSE | SSI | DTEM | DTES | EC | CC | |
|------------|--------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| M | Correlation Coefficient | 1.000 | .265** | .327** | .176** | .353** | .314** | .236** | .199** | .268** | .333** | .390** | .272** | .104* |
| | Sig. (2-tailed) | . | .000 | .032 |
| SO | Correlation Coefficient | .265** | 1.000 | .723** | -.022 | .454** | .672** | .193** | .584** | .501** | .717** | .629** | .829** | -.347** |
| | Sig. (2-tailed) | .000 | . | .000 | .646 | .000 |
| VO | Correlation Coefficient | .327** | .723** | 1.000 | .127** | .600** | .727** | .360** | .533** | .520** | .721** | .702** | .705** | -.100* |
| | Sig. (2-tailed) | .000 | .000 | . | .009 | .000 | .039 |
| OP | Correlation Coefficient | .176** | -.022 | .127** | 1.000 | .270** | .104* | .335** | .144** | .186** | .135** | .175** | -.007 | .556** |
| | Sig. (2-tailed) | .000 | .646 | .009 | . | .000 | .032 | .000 | .003 | .000 | .005 | .000 | .879 | .000 |
| PIL | Correlation Coefficient | .353** | .454** | .600** | .270** | 1.000 | .618** | .514** | .431** | .482** | .613** | .573** | .566** | .239** |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | . | .000 |
| PIQ | Correlation Coefficient | .314** | .672** | .727** | .104* | .618** | 1.000 | .334** | .588** | .518** | .767** | .703** | .683** | -.082 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .032 | .000 | . | .000 | .000 | .000 | .000 | .000 | .000 | .091 |
| SC | Correlation Coefficient | .236** | .193** | .360** | .335** | .514** | .334** | 1.000 | .342** | .490** | .349** | .371** | .353** | .480** |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | .000 | . | .000 | .000 | .000 | .000 | .000 | .000 |

| | | | | | | | | | | | | | | |
|------|-------------------------|--------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
| SSE | Correlation Coefficient | .199** | .584** | .533** | .144** | .431** | .588** | .342** | 1.000 | .635** | .602** | .517** | .635** | -.040 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .003 | .000 | .000 | .000 | . | .000 | .000 | .000 | .000 | .411 |
| SSI | Correlation Coefficient | .268** | .501** | .520** | .186** | .482** | .518** | .490** | .635** | 1.000 | .610** | .552** | .696** | .137** |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | . | .000 | .000 | .000 | .005 |
| DTEM | Correlation Coefficient | .333** | .717** | .721** | .135** | .613** | .767** | .349** | .602** | .610** | 1.000 | .808** | .765** | -.087 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .005 | .000 | .000 | .000 | .000 | .000 | . | .000 | .000 | .073 |
| DTES | Correlation Coefficient | .390** | .629** | .702** | .175** | .573** | .703** | .371** | .517** | .552** | .808** | 1.000 | .658** | -.019 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | . | .000 | .697 |
| EC | Correlation Coefficient | .272** | .829** | .705** | -.007 | .566** | .683** | .353** | .635** | .696** | .765** | .658** | 1.000 | -.208** |
| | Sig. (2-tailed) | .000 | .000 | .000 | .879 | .000 | .000 | .000 | .000 | .000 | .000 | .000 | . | .000 |
| CC | Correlation Coefficient | .104* | -.347** | -.100* | .556** | .239** | -.082 | .480** | -.040 | .137** | -.087 | -.019 | -.208** | 1.000 |
| | Sig. (2-tailed) | .032 | .000 | .039 | .000 | .000 | .091 | .000 | .411 | .005 | .073 | .697 | .000 | . |

Table 4: Correlations between Motivation and Commitment (Spearman’s rho);**Correlation is significant at the 0.01 level (2-tailed);*Correlation is significant at the 0.05 level (2-tailed), M = Motivation; SO = Sport Enjoyment; VO = Valuable Opportunities; OP = Other Priorities; PIL = Personal Investments-Loss; PIQ = Personal Investments-Quantity; SC = Social Constraints. SSE = Social Support-Emotional; SSI = Social Support-Informational; DTEM = Desire to Excel -Mastery Achievement; DTES = Desire to Excel-Social Achievement. EC = Enthusiastic Commitment; CC = Constrained Commitment.

Correlations between Motivation and Basic Needs in Sports

Spearman’s s index was used to investigate the Commitment correlation, as not all relevant variables followed the normal distribution. According to the results, in all cases of correlations between the motivation variable and the factors of the Basic needs in sports variable, a statistically significant result was returned ($p < .01$). The associations were positive and weak. Therefore, it is concluded that as the levels of the Motivation variable increase, so do the levels of the variable Basic needs in sports and vice versa (Table 5).

| | | Motivation | Competence | Choice | Internal perceived locus of causality (IPLOC) | Volition | Relatedness |
|------------|-------------------------|------------|------------|--------|---|----------|-------------|
| Motivation | Correlation Coefficient | 1.000 | .374** | .231** | .312** | .205** | .305** |
| | Sig. (2-tailed) | . | .000 | .000 | .000 | .000 | .000 |
| Competence | Correlation Coefficient | .374** | 1.000 | .541** | .675** | .405** | .524** |
| | Sig. (2-tailed) | .000 | . | .000 | .000 | .000 | .000 |
| Choice | Correlation Coefficient | .231** | .541** | 1.000 | .538** | .356** | .385** |
| | Sig. (2-tailed) | .000 | .000 | . | .000 | .000 | .000 |

| | | | | | | | |
|---|-------------------------|--------|--------|--------|--------|--------|--------|
| Internal perceived locus of causality (IPLOC) | Correlation Coefficient | .312** | .675** | .538** | 1.000 | .553** | .574** |
| | Sig. (2-tailed) | .000 | .000 | .000 | . | .000 | .000 |
| Volition | Correlation Coefficient | .205** | .405** | .356** | .553** | 1.000 | .415** |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | . | .000 |
| Relatedness | Correlation Coefficient | .305** | .524** | .385** | .574** | .415** | 1.000 |
| | Sig. (2-tailed) | .000 | .000 | .000 | .000 | .000 | . |

Table 5: Correlations of variables (Spearman’s rho);**.Correlation is significant at the 0.01 level (2-tailed).

Gender influence on Basic needs in sports and Commitment variables

To investigate whether there are differences in the levels of factors of the variables Basic needs in sports and Commitment depending on gender, the Mann Whitney U test was used. According to the results, gender has a statistically significant influence on the Internal perceived locus of causality (IPLOC) factor ($U = 16850.5$, $p = .006$) and the Relatedness factor ($U = 17153.5$, $p = .013$) with respect to the variable Basic needs in sports. Also, gender has a statistically significant influence on Valuable opportunities ($U = 17393.0$, $p = .021$), Personal Investments-Quantity ($U = 15426.5$, $p < .001$), Social Support-Emotional ($U = 17126.5$, $p = .012$), Desire to Excel-Mastery Achievement ($U = 17720.0$, $p = .046$) and Constrained Commitment ($U = 17521.5$, $p = .031$) on the Commitment variable (Table 6).

| | Internal perceived locus of causality (IPLOC) | Relatedness | Valuable Opportunities | Personal Investments-Quantity | Social Support-Emotional | Desire to Excel-Mastery Achievement | Constrained Commitment |
|------------------------|---|-------------|------------------------|-------------------------------|--------------------------|-------------------------------------|------------------------|
| Mann-Whitney U | 16850.500 | 17153.000 | 17393.000 | 15426.000 | 17126.500 | 17720.000 | 17521.500 |
| Wilcoxon W | 55910.500 | 56213.000 | 56453.000 | 54486.000 | 56186.500 | 56780.000 | 27961.500 |
| Z | -2.733 | -2.471 | -2.316 | -3.982 | -2.501 | -1.995 | -2.159 |
| Asymp. Sig. (2-tailed) | .006 | .013 | .021 | .000 | .012 | .046 | .031 |

Table 6: Effects of gender influence on the variables Basic needs in sports and Commitment.

In addition, it is observed that women’s levels of Basic needs in sports: 1) Internal perceived locus of causality (IPLOC), 2) Relatedness and factors of the variable Commitment: 1) Valuable Opportunities, Personal Investments-Quantity, 2) Social Support-Emotional, 3) Desire to Excel-Mastery Achievement, 4) Constrained Commitment were statistically significantly higher, compared to men. In contrast, men’s levels of the Commitment: Constrained Commitment factor were statistically significantly higher than women (Figure 4).

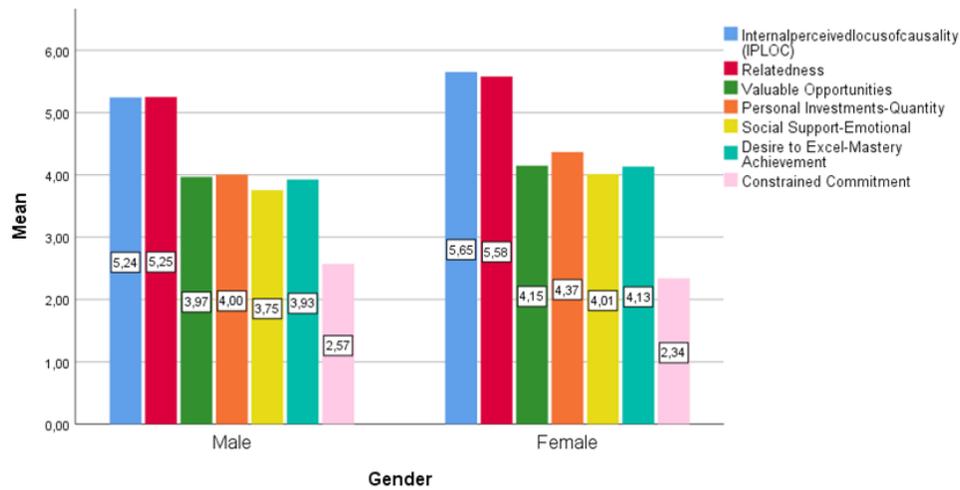


Figure 4: Clustered Bar Internal perceived locus of causality (IPLOC), Relatedness, Valuable Opportunities, Personal Investments-Quantity, Social Support-Emotional, Desire to Excel-Mastery Achievement, Constrained Commitment by Gender.

Impact of category of competence on the variables Basic needs in sports and Commitment

To investigate whether there are differences in factor levels of the Basic needs in sports variable depending on the category of competence, the Kruskal Wallis test was used. According to the results, the category of competence statistically significantly affects the Competence factor ($H = 12,430, p = .014$), the Choice factor ($H = 12,430, p = .014$), the Internal perceived locus of causality (IPLOC) factor ($H = 15,529, p = .004$), the Volition factor ($H = 23,999, p < .01$) and the Relatedness factor ($H = 9,825, p = .043$) (Table 7).

| | Competence | Choice | Internal perceived locus of causality (IPLOC) | Volition | Relatedness |
|------------------|------------|--------|---|----------|-------------|
| Kruskal-Wallis H | 12.430 | 15.529 | 23.999 | 12.928 | 9.825 |
| df | 4 | 4 | 4 | 4 | 4 |
| Asymp. Sig. | .014 | .004 | .000 | .012 | .043 |
| | Competence | Choice | Internal perceived locus of causality (IPLOC) | Volition | Relatedness |
| Kruskal-Wallis H | 12.430 | 15.529 | 23.999 | 12.928 | 9.825 |
| df | 4 | 4 | 4 | 4 | 4 |
| Asymp. Sig. | .014 | .004 | .000 | .012 | .043 |

Table 7: Kruskal Wallis results for the levels of Basic needs in sports based on the category of competence;a. Kruskal Wallis Test; b.Grouping Variable: Category of competence for athletic period 2023-2024.

More specifically, it was found that satisfaction in the Competence factor ranged at statistically significantly higher levels in the A2 League Men and Women category, compared to the A1 League Men and Women category. Also, satisfaction in the Choice factor ranged at statistically significantly higher levels in the A2 League Men and Women category and the National League 1 Men category, compared to the A1 League Men and Women category. Meanwhile, satisfaction in the Internal perceived locus of causality (IPLOC) factor ranged at statistically significantly higher levels in the A2 League Men and Women and National League 1 Men categories, compared to the A1 League Men and Women category. In addition, satisfaction in the Volition factor ranged at statistically significantly higher levels in the A2 League Men and Women category, compared to the A1 League Men and Women category. Finally, satisfaction in the Relatedness factor ranged at statistically significantly higher levels in the A2 League Men and Women category, compared to the A1 League Men and Women category.

To investigate whether there were differences in the levels of the Commitment variable factors by category of competence, the Kruskal Wallis test was used. According to the results, the category of competence has a statistically significant effect on the Sport enjoyment factor ($H = 12.041, p = .017$), the Other priorities factor ($H = 19.867, p = .001$), the Personal Investments - Loss factor ($H = 12.383, p = .015$), the Personal Investments-Quantity factor ($H = 18.879, p = .001$), the Desire to Excel-Mastery Achievement factor ($H = 15.572, p = .004$), and the Desire to Excel-Social Achievement factor ($H = 16.835, p = .002$) (Figure 5).

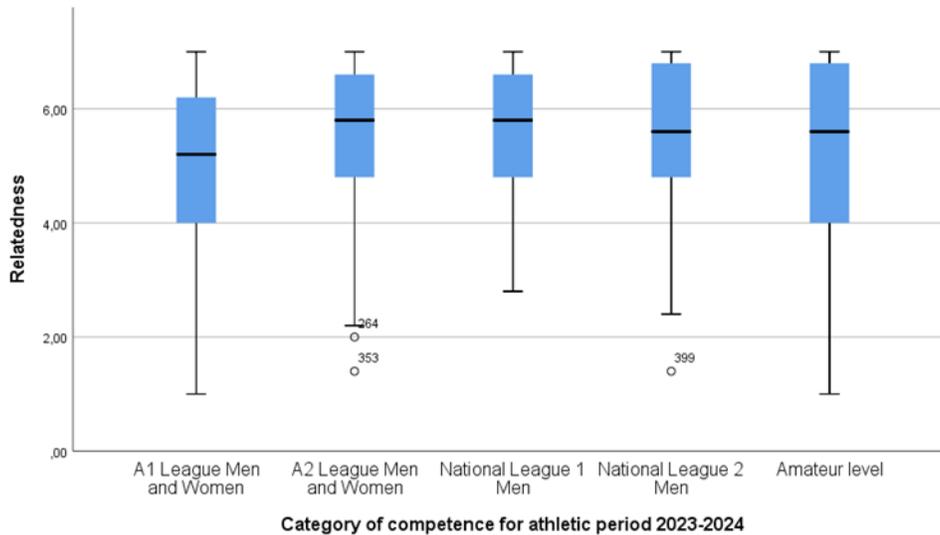


Figure 5: Simple Boxplot of Relatedness by Category of competence for athletic period 2023-2024.

3.7 Impact of Years as a basketball team member on the variable Commitment

To investigate whether there are differences in the levels of the factors of the Commitment variable according to Years as a basketball team member, the Kruskal Wallis test was used. According to the results, Commitment has a statistically significant effect on the Personal Investments-Loss factor ($H = 14.483, p = .006$), the Social Support-Emotional factor ($H = 11.804, p = .019$), the Social Support-Informational factor ($H = 17.682, p = .001$), and the Desire to Excel-Mastery Achievement factor ($H = 11.229, p = .024$) (Figure 6).

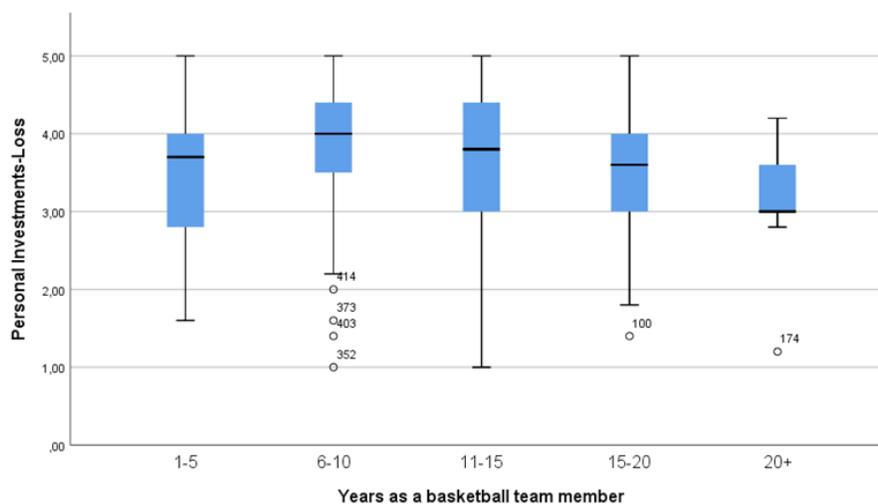


Figure 6: Kruskal Wallis results for the levels of Commitment based on the category of competence.

Specifically, it was found that commitment to the Personal Investments-Loss factor was statistically significantly higher in athletes with 6-10 years as basketball team members, compared to athletes with 20+ years as basketball team members. Also, commitment to the Social constraints factor ranged at statistically significantly higher levels in athletes with 11-15 years as basketball team members, compared to athletes with 15-20 years as basketball team members. Meanwhile, commitment to the Social Support-Emotional factor ranged at statistically significantly higher levels in athletes with 11-15 years as basketball team members, compared to athletes with 15-20 years as basketball team members. In addition, commitment to the Social Support-Informational factor ranged at statistically significantly greater levels in athletes with 1-5 and 11-15 years as basketball team members, compared to athletes with 15-20 years as basketball team members. Still, commitment to the Desire to Excel-Mastery Achievement factor ranged at statistically significantly greater levels in athletes with 11-15 years as basketball team members, compared to athletes with 15-20 years as basketball team members.

Discussion

Motivation Levels

The study reveals a midrange level of intrinsic and extrinsic motivation among basketball athletes, consistent with prior research in organized sports contexts [54]. This balance is crucial as it fosters sustained performance while reducing the risk of burnout often associated with high motivation levels, as emphasized by Vallerand et al. [55]. The observed results underscore the importance of environments that promote personal achievement and acknowledgment, which are key to cultivating intrinsic drive, resilience, and long-term dedication to sports [1]. This perspective aligns with Self-Determination Theory (SDT), highlighting the interplay between intrinsic and extrinsic motivators in supporting athletes' well-being. By ensuring a balance, athletes can enjoy extended careers characterized by engagement, satisfaction, and reduced stress from competitiveness.

Furthermore, the results indicate elevated levels of Competence and Relatedness among athletes, with moderate levels of autonomy reflected in the Choice and Volition variables. These findings resonate with SDT, which posits that satisfying basic psychological needs fosters sustained intrinsic motivation [56]. The slight elevation in Internal Perceived Locus of Causality (IPLOC) reinforces the role of internal motivation in athlete performance, a concept supported by Teixeira et al. [4].

Moreover, previous studies by Standage et al. [57] confirm that environments emphasizing competence and relatedness improve both motivation and psychological outcomes. These insights stress the need for effective coaching strategies, team cohesion, and community involvement to build supportive environments

that enhance performance and satisfaction. The incorporation of simple bar plots effectively highlights the variance in levels of psychological needs across demographics, further strengthening the findings.

Basic Needs in Sports

The study found elevated levels of Competence and Relatedness, with moderate levels of Autonomy, as reflected in the Choice and Volition variables. These findings resonate strongly with Self-Determination Theory (SDT), which posits that fulfilling basic psychological needs is essential for intrinsic motivation [56]. High levels of perceived competence and relatedness indicate that athletes generally feel capable and supported within their sporting environments, fostering positive psychological outcomes.

The results are consistent with findings by Standage et al. [57], which emphasize the critical role of competence and meaningful connections in maintaining motivation. Moreover, Teixeira et al. [4] highlight that autonomy, competence, and relatedness significantly contribute to athletes' sustained dedication to their sport. Effective coaching practices, inclusive team dynamics, and robust community support systems play vital roles in cultivating such environments.

Practical applications of these findings include training coaches to adopt autonomy-supportive strategies, such as involving athletes in decision-making and emphasizing mastery-oriented feedback. Future studies should explore how these psychological needs interact in high-pressure contexts, such as playoff seasons, where the fulfillment of these needs might fluctuate.

Sports Commitment

Athletes reported high levels of Sport Enjoyment, Valuable Opportunities, and Enthusiastic Commitment, while factors such as Constrained Commitment were notably low. This reflects a positive commitment profile, driven more by intrinsic motivators than obligation. These results align with Weiss and Weiss [58], who emphasize that enjoyment and perceived opportunities are key drivers of sustained athletic engagement.

Social support also played a pivotal role, with both emotional and informational support being rated slightly highly. This finding supports Scanlan et al. [59], who identify social and emotional investments as critical indicators of long-term commitment. The results suggest that fostering a supportive network within teams can enhance athletes' engagement and reduce the risk of burnout.

Future research could focus on understanding the dynamics of social support at different stages of athletes' careers. For example, do younger athletes benefit more from emotional support, while older athletes prioritize informational support? Longitudinal studies could provide insights into how these factors evolve over time.

Correlation Between Motivation and Commitment

Statistically significant positive correlations ($p < .05$) were observed between motivation and the factors of commitment, though these were weak. This indicates that as motivation levels increase, commitment levels also tend to rise, albeit marginally, and vice versa. This finding is supported by research that suggests motivation and commitment are interconnected, with higher motivation often fostering stronger commitment [60]. Mohamed [1] emphasizes that motivation linked to autonomy and relatedness fosters sustained commitment, highlighting the critical role of psychological factors in enhancing both performance and retention in sports. From a practical perspective, these findings call for tailored interventions that align intrinsic motivators with commitment-building strategies, enabling athletes to maintain passion and focus over time. The findings highlight the importance of comprehending the impact of psychological factors on athletes' performance, as well as the necessity for coaches and sports psychologists to create an environment that enhances intrinsic motivation and meets essential psychological needs. Creating such an atmosphere helps players stay involved and passionate about their activity over time, in addition to encouraging improved performance [8]. By using a more comprehensive strategy, athletes may have more sustainable careers where they are not just focused on short-term results but also on their own development and satisfaction in their chosen field [1].

Correlation Between Motivation and Basic Needs in Sports

Similar to the findings above, weak but significant correlations ($p < .01$) were observed between motivation and the satisfaction of basic needs in sports. This reinforces SDT's assertion that fulfilling fundamental needs of competence, autonomy, and relatedness drives motivation [54]. Abou Elmagd [9] emphasizes the role of mental preparedness and social support in optimizing athlete engagement, which aligns with the study's implications for fostering need-supportive environments. Coaches and sports organizations can draw on these insights to create motivational climates that cater to athletes' psychological needs, enhancing both performance and satisfaction.

Gender Influence on Basic Needs and Commitment

The study revealed noteworthy gender-based differences in the psychological factors influencing athletes' experiences and motivations. Female athletes demonstrated significantly higher levels of Internal Perceived Locus of Causality (IPLOC), Relatedness, and Valuable Opportunities compared to their male counterparts. These findings align with previous research by Gill [61] and Choi et al. [62], which highlights the tendency of female athletes to prioritize social support, meaningful connections, and a sense of relatedness within their sporting environments. These factors often act as key drivers of their intrinsic motivation and

commitment to their sport. By contrast, male athletes exhibited higher levels of Constrained Commitment, reflecting a greater tendency to rely on obligation-driven motivators, such as external pressures or expectations.

This pattern suggests important distinctions in the motivational mechanisms underlying gendered experiences in sports. Female athletes appear to benefit more from environments that emphasize social inclusion, emotional connections, and opportunities for personal growth. These factors not only enhance their motivation but also strengthen their commitment to athletic pursuits. On the other hand, the higher reliance on obligation-driven motivators among male athletes may suggest an increased susceptibility to stress or burnout if external pressures are not balanced with intrinsic motivators such as personal satisfaction or mastery goals.

These findings underscore the need for gender-sensitive coaching practices that address the unique motivational needs of male and female athletes. For instance, fostering a sense of belonging, emphasizing team cohesion, and providing consistent emotional support could be particularly effective strategies for female athletes. Coaches could implement mentorship programs or team-building activities designed to reinforce relatedness and create a supportive environment tailored to female athletes' preferences.

Conversely, for male athletes, coaching strategies could focus on reducing obligation-driven stressors while enhancing autonomy and mastery-oriented goals. Encouraging male athletes to set personal goals, pursue self-improvement, and derive satisfaction from skill development can mitigate the reliance on external pressures. Such practices could improve their psychological well-being, reduce the risk of burnout, and sustain long-term engagement in their sport.

Future research could further explore how these gender differences manifest across different age groups, levels of competition, and cultural contexts. Longitudinal studies would also be valuable to examine how motivational factors evolve over time and how gendered approaches to coaching can influence career longevity and athletic performance. Overall, recognizing and addressing these gender-specific dynamics is essential for fostering inclusive and effective sports environments that maximize the potential of all athletes.

Influence of Competence Category on Basic Needs and Commitment

Athletes in the A2 League, regardless of gender, displayed significantly higher satisfaction levels across multiple psychological and motivational factors, including Competence, Choice, Internal Perceived Locus of Causality (IPLOC), Volition, and Relatedness, when compared to their counterparts in the A1 League. These findings suggest that athletes in the A2 League experience a more supportive and less pressurized environment, allowing them to focus more on intrinsic rewards and personal

development. Furthermore, commitment levels for variables such as Sport Enjoyment, Other Priorities, Personal Investments-Loss, Personal Investments-Quantity, and both Desire to Excel-Mastery and Social Achievement were also notably higher among A2 League athletes. These results are consistent with Ames and Archer [64], who argue that environments with reduced competition often foster greater psychological satisfaction and higher levels of commitment, as athletes can channel their attention toward internal incentives and personal growth.

However, the notion that reduced rivalry always leads to better psychological outcomes warrants further scrutiny. While A2 League athletes reported higher satisfaction and commitment levels, it is essential to consider the competitive challenges faced by A1 League athletes. Smith and Smoll [66] highlight that competitive pressure in higher-stakes environments, such as the A1 League, often drives athletes to develop resilience and determination, traits that are critical for peak performance. In high-pressure contexts, athletes are likely to adopt coping mechanisms that may not be as readily utilized in less competitive settings. These mechanisms can include mental toughness training, stress management techniques, and goal-setting practices, all of which contribute to their ability to navigate and succeed in demanding environments.

Conversely, the absence of such pressures in the A2 League might lead to a degree of complacency among athletes, as their motivation is not constantly tested against external challenges. While a less competitive atmosphere can enhance psychological satisfaction in the short term, it might not encourage the same level of performance optimization or skill enhancement observed in higher-stakes settings. This trade-off highlights the complex relationship between competition, psychological well-being, and long-term athletic development.

It is also worth noting that differences between the leagues might reflect structural disparities beyond competition pressure. For example, A1 League athletes are often subject to more rigorous schedules, higher expectations from stakeholders, and greater public scrutiny. These factors, while demanding, might also instill a higher sense of purpose and commitment, driving athletes to excel under pressure. At the same time, the greater stress associated with such environments could potentially hinder long-term psychological well-being if not managed effectively.

These findings underscore the need for tailored approaches to athlete support, depending on the competitive level. In the A2 League, maintaining the benefits of intrinsic motivation and psychological satisfaction requires deliberate strategies to avoid complacency, such as introducing performance-focused incentives and goal-oriented feedback. In contrast, for A1 League athletes, interventions might focus on providing psychological support to manage stress and avoid burnout while harnessing the motivational benefits of competitive pressure.

Future research should delve deeper into these dynamics by exploring how different levels of competition influence not only psychological outcomes but also athletic performance, resilience, and career longevity. Longitudinal studies could provide valuable insights into how athletes adapt to competitive pressures over time and whether the psychological benefits of lower-stakes environments persist as athletes progress through their careers. Ultimately, this nuanced understanding can help coaches and sports organizations design environments that balance competition and well-being, optimizing both performance and psychological health.

Influence of Years as a Basketball Team Member on Commitment

Athletes with 6-10 years of team membership demonstrated significantly higher levels of Personal Investments-Loss compared to those with over 20 years of membership. This finding suggests that athletes in this mid-career stage perceive greater stakes in their ongoing participation, likely due to the investments of time, energy, and personal growth they have already dedicated to their sport. In contrast, athletes with 11-15 years of membership exhibited significantly higher levels of Social Constraints, Social Support-Emotional, and Desire to Excel-Mastery Achievement compared to those with 15-20 years of membership. This reflects the transitional period often associated with this stage, where athletes face heightened demands to balance personal goals with team responsibilities while adapting to evolving dynamics within their teams.

For Social Support-Informational, athletes with 1-5 years and those with 11-15 years of team membership reported higher levels than those with 15-20 years. This finding suggests that early-career athletes, as well as those in mid-career phases, may rely more heavily on informational guidance from peers, coaches, and support staff to navigate their development and challenges. The decline in informational support for athletes with more than 15 years of membership could indicate a shift toward self-reliance or a reduced emphasis on external guidance as they become more experienced and established within their teams.

These trends are consistent with the findings of Clancy et al. [67], who suggest that intermediate levels of experience correlate with heightened emotional and social investments. This period often represents a time when athletes are consolidating their skills, adapting to the social demands of team dynamics, and solidifying their commitment to their sport. The results also align with Cucui & Cucui [6], who emphasize the importance of intrinsic motivation and social support in fostering longevity in sports. Intrinsic motivation, strengthened by skill development and a supportive environment, plays a critical role in sustaining athletes' resilience and engagement during these transitional stages.

The implications of these findings extend to coaching and team management practices. For athletes with 6-15 years of experience, maintaining high levels of social and emotional support is crucial. Coaches and team staff should prioritize fostering strong relationships, providing opportunities for mastery achievement, and addressing the unique challenges these athletes face as they reconcile their personal and team-oriented goals. Tailored interventions such as mentorship programs, targeted feedback, and role-specific responsibilities could help sustain their commitment and motivation [68].

For athletes with over 15 years of membership, the focus should shift to recognizing their accumulated expertise and ensuring they feel valued within the team. This could involve giving them leadership roles, providing opportunities to mentor younger teammates, and addressing any declining reliance on informational support by reinforcing their autonomy and sense of purpose.

Future research should explore how these trends evolve longitudinally, particularly how athletes transition from active competition to other roles within the sport, such as coaching or mentorship. Additionally, examining the impact of team culture and organizational support structures on these patterns could provide deeper insights into optimizing athlete experiences across different stages of their careers. Understanding these dynamics can help sports organizations create environments that foster sustained commitment, well-being, and performance, ensuring the long-term success of athletes and their teams.

Limitations-Future recommendations

This research had many limitations that should be acknowledged when analysing the results and their consequences. Although the sample size was substantial, it did not accurately reflect the wider population of basketball players. This constraint arises from the use of convenience sampling, which, although pragmatic, may have resulted in selection bias. Subsequent study should use probability sampling techniques to augment sample representativeness and boost the generalisability of the results. The use of a convenience sample underscores the need for careful interpretation, since it may not comprehensively represent the experiences of athletes across various settings or competitive tiers.

Another issue pertains to the dependence on self-reported data obtained via surveys. This method has a fundamental risk of social desirability bias, whereby participants may provide replies they see as more socially acceptable than accurately conveying their genuine thoughts or emotions. The inability to verify the legitimacy of the replies generates ambiguity over the reliability of the data. Future research should use mixed-method methods that integrate quantitative surveys with qualitative interviews to tackle these problems. This strategy may enable data triangulation, providing deeper insights and improving the validity of the results.

A notable restriction is the absence of normative data for the used metrics. Efforts to establish interpretive guidelines for the scores of the data collecting instruments used in this research were unsuccessful. Consequently, assessing the intensity levels of the variables only using unrefined self-reported values is fundamentally flawed. In the absence of normative standards, there exists a potential of overestimation or distortion in interpretations. To address this limitation, future research should emphasise the use of measuring instruments that are supported by verified norms and standards, enabling more accurate and dependable interpretations.

These characteristics combined limit the applicability of the study's results to other contexts. In the absence of representative sampling, normative data, or further methodological protections, the conclusions cannot be reliably generalised beyond the individual sample examined. Nonetheless, despite these constraints, the results provide significant insights into the psychological and motivational dynamics of basketball players. By implementing suitable methodological enhancements, including representative sample and verified measuring instruments, further research may expand upon this groundwork and enhance the generalisability of the findings. In conclusion, while this research significantly enhances the comprehension of psychological processes in basketball players, its results should be interpreted in light of these limitations. Future research that addresses these methodological limitations will provide more robust and generalisable results, so advancing both practice and theory in sports psychology.

There are some problems with this study that show there are big areas where more research needs to be done on how basketball players' minds and motivations work. Several methods are offered to help fix these problems and make the results truer and more useful in real life. To begin, it is important to use probability selection methods to get a fairer group of basketball players. This study used convenient sampling, which makes it hard to apply to other situations. To fix this, future studies should use random or stratified sampling. This way would make sure that players from all walks of life, levels of competition, and places are properly represented, which would help us understand how the sport's psychological processes work. Integrating mixed-method techniques is an essential advice. Integrating qualitative interviews with quantitative surveys would provide deeper and more complex insights into athletes' experiences and motivations. Surveys provide quantifiable data, however qualitative approaches like interviews or focus groups may elucidate the nuances of athletes' psychological conditions and individual viewpoints. Collectively, these strategies would facilitate data triangulation, enhancing the trustworthiness and profundity of the results.

To mitigate the shortcomings associated with self-reported data, next research should use measuring instruments supplemented by verified normative data. The lack of normative standards in

the present investigation hindered the interpretation of changing intensity levels based merely on raw data. Subsequent research should emphasise the use of instruments with established standards to provide more accurate and reliable data interpretations. This would decrease the possibility of overinterpretation or distortion and enhance the robustness of the results.

Investigating the longitudinal dynamics of psychological components is a significant opportunity for future study. Through longitudinal studies, researchers might investigate the evolution of motivation, dedication, and fundamental psychological requirements over an athlete's career. Such research would provide insights on pivotal transitions, such as the progression from amateur to professional levels, or the adjustment to life post-retirement from active competition.

Mitigating social desirability bias is crucial for enhancing the precision of self-reported data. Participants may provide responses they consider socially acceptable instead of accurately representing their own experiences. Subsequent investigations may alleviate this bias by using anonymous response techniques or utilising indirect instruments like Implicit Association Tests (IAT). These approaches may reveal more genuine answers and provide a greater comprehension of the underlying psychological processes.

Expanding the study to include players from other sports and cultural backgrounds might improve the generalisability of the results. Examining whether the patterns identified in basketball players are uniform throughout team and individual sports or differ between cultural contexts will enhance the understanding of the relationship between motivation, psychological needs, and commitment. Comparative research might reveal distinct characteristics affecting athletes in various circumstances, providing useful insights for customised therapies.

Future studies should focus on intervention-based approaches to address the issues identified in this investigation. Creating and assessing initiatives that enhance intrinsic motivation, foster resilience, and strengthen emotional regulation could offer valuable solutions to the obstacles faced by athletes. These interventions may encompass workshops for coaches to implement autonomy-supportive strategies, resilience training initiatives for athletes, and actions to foster team cohesion.

It would also be helpful to emphasise the development of organised support networks. Research may examine how athletes' motivation, wellbeing, and performance are affected by peer networks, mentorship programs, and customised feedback systems. Sports organisations looking to enhance their athlete development programs would benefit greatly from the insights this inquiry would provide.

Comprehending contextual factors, like competitive intensity, team dynamics, and organisational culture, is essential. Future research

may explore how these elements affect athletes' psychological and motivational experiences, providing a more comprehensive knowledge of the environmental impacts on performance and commitment. This would facilitate the development of tailored solutions that tackle the distinct issues encountered by athletes in various circumstances.

In conclusion, these recommendations aim to address the deficiencies identified in this study and enhance further research on psychological and motivational factors in sports. The use of representative sampling procedures, integrated methodology, validated equipment, and advanced technology allows researchers to provide more comprehensive, detailed, and practical results. These programs seek to deepen our understanding of athlete psychology, guide evidence-based practices, and shape policies that foster athletes' enduring performance and well-being.

Practical Implications

The results of this study provide beneficial practical applications for sports psychologists and instructors, emphasising the importance of establishing environments that promote the well-being and motivation of athletes. In order to cultivate intrinsic motivation, coaches should prioritise autonomy-supportive practices, which enable athletes to engage in the goal-setting and decision-making processes. It is essential to provide constructive feedback that emphasises personal growth and effort rather than outcomes in order to cultivate long-term engagement and resilience.

Fostering a sense of competence is equally vital. Training regimens should have activities that progressively develop in complexity and are suitable for the athletes' ability levels in order to foster competence. Acknowledging little victories boosts self-esteem and contentment. Additionally, open communication, peer mentorship, and team-building exercises foster a sense of belonging and contribute to the development of a positive environment where players feel valued and connected by their coaches and teammates.

Sports psychologists may teach athletes mental skills such as stress management and mindfulness, as well as treat emotional control, to improve their resilience and attention under hardship. Customized techniques that take gender differences into consideration, such as stressing autonomy for male athletes and social support for female athletes, may satisfy unique motivating needs. These guidelines support the establishment of holistic settings that promote motivation and well-being, ensuring that athletes achieve personal and professional success while also positively impacting team relations.

Conclusions

This research substantiates the hypothesis that motivation and commitment among basketball players are significantly affected by the satisfaction of fundamental psychological needs: autonomy,

competence, and relatedness. Moderate levels of intrinsic and extrinsic motivation maintain engagement and mitigate burnout, supporting the notion that settings that promote individual success and acknowledgement foster intrinsic motivation and resilience. Research indicates that the equilibrium between inner drive and external recognition promotes athletes' enduring commitment and contentment with their activity. Moreover, pleasure, social support, and chances for personal development were recognized as significant factors influencing commitment, particularly among athletes with intermediate experience, underscoring the importance of supporting surroundings. Disparities by gender imply that tailored strategies might improve both male and female athletes' performance and well-being. Despite limitations related to sample size and self-reporting, this study emphasizes the importance of environments that meet athletes' psychological needs, promoting long-term motivation, resilience, and happiness in competitive sports.

Author Contributions

Conceptualization, T.R. and N.K.; methodology, T.R.; validation, T.R., N.K. and E.A.; formal analysis, N.M.; investigation, N.K. and E.A.; data curation, N.K.; writing—original draft preparation, N.K.; writing—review and editing, T.R. and N.M.; visualization, E.A.; supervision, N.K. and E.A.; project administration, N.K. and E.A.

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Conflicts of Interest

The authors declare no conflicts of interest.

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