

## Motivation and basic psychological needs in basketball initiation

### La motivación y las necesidades psicológicas básicas en la iniciación deportiva de baloncesto

### Motivação e necessidades psicológicas básicas na iniciação ao basquetebol

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## ABSTRACT

Motivation is considered an important factor for the success and maintenance of the practice in any sport. The objective of the study was to correlate the motivation and basic psychological needs of young basketball athletes who were in the initiation phase of sport. The research involved 53 athletes from the city of Maringá-Paraná-Brazil, with an average age of 13.25 years (PD 2.54 years). The instruments used in the research were the sport motivation scale and the exercise basic psychological needs questionnaire. The Spearman test was used for data analysis, assuming a significance level of 95% ( $p < 0.05$ ). The results showed that the dimensions of basic psychological needs are not uniformly correlated with the dimensions of motivation. The greatest correlation found was between competition and extrinsic motivation introjection, which shows that the internal pressures of the athlete himself and the fear of constraint make the practitioner develop greater competence to perform the proposed activities. Furthermore, the relationship dimension was only linked to aspects related to extrinsic motivation, where good relationships favor knowledge,



testing and the search for pleasure in the sport. Finally, autonomy showed a moderate relationship with intrinsic and extrinsic motivations.

**Keywords:** Sport; school; motivation; self-determination theory; sports initiation.

## RESUMEN

La motivación es considerada un factor importante para el éxito y el mantenimiento de la práctica en cualquier modalidad deportiva. El objetivo del estudio fue correlacionar la motivación y las necesidades psicológicas básicas de atletas jóvenes de baloncesto que se encontraban en la fase de iniciación deportiva. Participaron en la investigación 53 atletas de la ciudad de Maringá- Paraná- Brasil, con media de edad de 13,25 años (DP 2,54 años). Los instrumentos utilizados en la investigación fueron la escala de motivación para el deporte y el cuestionario de necesidades psicológicas básicas en el ejercicio. Para el análisis de los datos, se utilizó el test de Spearman, adoptando un nivel de significación de 95 % ( $p \leq 0,05$ ). Los resultados evidenciaron que las dimensiones de las necesidades psicológicas básicas no presentan uniformidad en la correlación con las dimensiones de motivación. La mayor correlación encontrada fue entre competencia y la motivación extrínseca introyección, lo que demuestra que las presiones internas del propio atleta y el miedo al constreñimiento hacen que el practicante desarrolle mayor competencia para realizar las actividades propuestas. Además, la dimensión relaciones presentó solamente vínculo con los aspectos ligados a la motivación extrínseca, donde las buenas relaciones favorecen el conocer, el probar y la busca del placer en la modalidad deportiva. Por último, la autonomía demostró relación moderada con las motivaciones intrínsecas y extrínsecas.

**Palabras clave:** deporte; escuela; motivación; teoría de la autodeterminación; iniciación deportiva.

## RESUMO

A motivação é considerada um fator importante para o sucesso e a manutenção da prática em qualquer modalidade esportiva. O objetivo do estudo foi correlacionar a motivação e as necessidades psicológicas básicas dos jovens atletas de basquetebol que se encontravam em fase de iniciação ao esporte. Cinquenta e três atletas da cidade de Maringá - Paraná - Brasil participaram da pesquisa, com idade média de 13,25 anos (DP 2,54 anos). Os instrumentos utilizados na pesquisa foram a escala de motivação desportiva e o questionário de necessidades psicológicas básicas do exercício. Para a análise dos dados foi utilizado o teste Spearman, adotando um nível de significância de 95 % ( $p < 0,05$ ). Os resultados mostraram que as dimensões das necessidades psicológicas básicas não apresentam uniformidade na correlação com as dimensões da motivação. A maior correlação encontrada foi entre a competência e a introyecção da motivação extrínseca, o que mostra que as pressões internas do próprio atleta e o medo de constrangimento fazem com que o praticante desenvolva maior competência para realizar as atividades propostas. Além disso, a dimensão das relações apresentou apenas uma ligação com os aspectos ligados à motivação extrínseca, onde boas relações favorecem o conhecimento, o teste e a busca do prazer na modalidade esportiva. Finalmente, a autonomia mostrou uma relação moderada com motivações intrínsecas e extrínsecas.

**Palavras-chave:** Desporto; escola; motivação; teoria da autodeterminação; iniciação ao desporto.



## INTRODUCTION

Motivation is considered an important factor for the success and maintenance of the practice in any sport modality. In the study of motivation, researchers start from the principle that, by offering students good options, stimulating their relationships during the proposed activities and providing tasks that provoke the perception of competence, it can favour motivation during training sessions (Arias, Castuera, Navarrete, Álvarez, & González, 2010; Costa, Maroco, & Vieira, 2017).

In this way, the good performance of young athletes in sports is associated with pleasure, the relationships built in the practice of sports, the perception of competition and the learning of the modality, among other aspects (Vieira, Mizoguchi, García Junior, & García, 2013). Likewise, social, environmental and individual factors contribute to the choice, initiation and maintenance of the sport practice. They also affect the dedication and commitment to training that athletes develop during their sports careers (Weinberg *et al.*, 2000; Nakashima *et al.*, 2018).

Sport development can begin in the early school years through initiation to sport and, over time, athletes can begin to participate in formal and institutionalized competitions in and out of the school environment. In this way, motivation can be one of the most important aspects, making young athletes more attached to or abandoning the sport. It is understood that by starting earlier, opportunities to develop skills and confidence can allow for a differentiated view of the young athlete's competitive process (Zambrin *et al.*, 2016). However, Santana, (2005) states that young people who begin sports training with large competitive participations may have a greater chance of abandoning the sport. Therefore, it can be interpreted that, although initiation into competition is important, it should be proposed in an appropriate way, without overloading, so as not to generate demotivation. However, the absence of competitions can also develop demotivation.

In this sense, in explaining the construct of motivation, the Theory of Self-Determination (Tad), which emerged in the 1980s, sought to describe the factors resulting from studies that showed that extrinsic reward is not the only way to motivate an individual. In addition, it was verified that, offering a reward to a person for something he would do anyway, would negatively influence his intrinsic motivation (Deci & Ryan, 1985).

According to Deci and Ryan, (1985), Tad postulates that every human being is endowed with an innate propensity to develop self-determination. From birth, people are involved in activities that enable them to satisfy basic psychological needs: competence, autonomy and relationships. When people experience the satisfaction of basic psychological needs in a specific situation, they tend to become more intrinsically motivated. On the other hand, when they experience frustration of these needs, they tend to become less intrinsically motivated. Consequently, when immediate rewards are used for activities, people lose their experience of autonomy and the locus of causality for behavior becomes external (Mallia *et al.*, 2019). This can occur when evaluations, social pressure and demands for results are used, which are very common practices in the sports environment.

The most autonomous form of extrinsic motivation is integrated regulation; in this, subjects perform activities consistent with other aspects of themselves, such as the action of studying. Thus, the action of learning is in accordance with the philosophy of life.



The forms of motivation are arranged along a continuum of autonomy. For Tad, the continuum reflects the degree of regulation of behavior. De-motivation is totally devoid of autonomy; intrinsic motivation is autonomous and the other types of extrinsic motivation (integrated regulation, introjection regulation and identified regulation) are organized between de-motivation and intrinsic motivation. It is emphasized that de-motivation is totally devoid of autonomy and intrinsic motivation is more autonomous (Ryan & Deci, 2009).

When external pressure is not used, individuals can maintain an internal locus of perceived causality, maintaining intrinsic motivation. Together with this, positive feedback helps to maintain feelings of competence and therefore evidence of intrinsic motivation. On the contrary, negative feedback, especially when inserted in a control context, causes feelings of frustration, damaging intrinsic motivation (Mouratidis, Vansteenkiste, Lens, & Sideridis, 2008). Thus, the environment of sports initiation, such as clubs, schools and social projects, is a propitious place for young athletes to build more appropriate behaviours, which can improve their motivation.

Precisely, in sports initiation, motivation can instigate factors such as increased adherence to the practice of sport, provoking abandonment due to lack of motivation for the practice of the modality, interference in the selection of the sports activity, in addition to influencing the quality of the athlete's performance in the sport (Soares, Reis, & Perufo, 2013). Thus, the understanding of these constructs is relevant to understand sport initiation and the diverse motivational factors that influence it. Likewise, it helps in the reduction of elements that cause negative aspects in athletes, which can lead to the abandonment of the practice of the sport modality, due to the lack of motivation.

In order to understand the aspects that interfere in the motivation of young athletes and to identify the basic psychological needs that stand out in the sports initiation phase, the objective of the present study was to correlate the different existing dimensions in the motivational environment and the basic psychological needs of young basketball athletes in the sports initiation phase

## **MATERIALS AND METHODS**

The research is characterized as descriptive-exploratory with a quantitative and cross-sectional approach, which allows us to understand the panorama of the population under investigation. Thus, by means of questionnaires, it is possible to carry out a characterization of the selected sample (Gil, 2002).

The study population was made up of basketball athletes who participated in the Paraná School Games-Maringá Municipal Phase (Brazil). The athletes were distributed in two categories: Class A, which included students aged 15-17, and Class B, which included students aged 12-14. The School Games are organized in five stages, which are Municipal Phase, Regional Phase, Regional Macro Phase, State Phase and National Phase. The Municipal Phase is the stage in which athletes begin to participate in sports competitions. The sample for this study was composed of young athletes, linked to the school teams of ten basic education institutions, which in Brazil includes primary and secondary education and which were randomly selected. The selection criteria for the sample was as follows: athletes participating in the Paraná Municipal School Games, registered in the basketball modality and who accepted to participate in the study. Thus, the sample was integrated by 53 basketball athletes with an average age of 13.25 years (standard deviation of 2.54 years).



The Sports Motivation Scale was used to identify motivation levels (Bara Filho *et al.*, 2011; Costa *et al.*, 2011). The instrument was developed in French by (Brière, Vallerand, & Pelletier, 1970) and called "Échelle de Motivation dans lês Sports".

It should be noted that Pelletier *et al.*, (1995), validated the instrument for the English language, which favoured its dissemination. Then, the validation and translation of this questionnaire to the reality of athletes in Brazil occurred (Bara Filho *et al.*, 2011). Subsequently, it was applied and validated specifically for soccer athletes (Costa *et al.*, 2011). The instrument uses a Likert scale from one to seven, in which one is "not applicable at all" and seven is "fully applicable".

The Sports Motivation Scale (Bara Filho *et al.*, 2011) is composed of 28 items, divided into seven dimensions, among which are: intrinsic motivation-to know; intrinsic motivation-to achieve goals; intrinsic motivation-stimulating experiences; extrinsic motivation-external regulation; extrinsic motivation-introjection; extrinsic motivation-identification; de-motivation. It is highlighted that the instrument presented in its validation for the Portuguese language a variation of the internal consistency index in the dimensions between 0.62 and 0.76, which is considered acceptable.

To identify the basic psychological needs for the practice of sport, the *Basic Psychological Needs Questionnaire* was used in the exercise validated for the Brazilian population by Costa *et al.*, (2017) Vlachopoulos & Michailidou, (2006), developed this questionnaire with the aim of evaluating perceptions of the extent to which innate needs for autonomy, competence and relationships are met during the practice of physical exercise.

In the validation of this instrument, for the Brazilian reality, 12 items that are divided into three dimensions formed the questionnaire: competence, autonomy and relationships. It is emphasized that the instrument is answered with the help of a five-point Likert scale, where one is "I do not agree" and five is "I fully agree". In the evaluation of the internal consistency of the instrument, Cronbach's alpha indexes reached heights considered good, which were between 0.84 and 0.89 (Costa *et al.*, 2017).

Finally, a sociodemographic questionnaire was used to characterize the study participants. In the questionnaire, the following sociodemographic variables were investigated: age range, sex, practice of another sport modality, time spent practicing basketball, place of training, distance from the place of training to the residence, weekly training time and level of education.

### **Data Collection**

The data collection happened in a single stage during the Paraná School Games-Municipal Phase. First, the parents or those responsible for the athletes were asked to sign the Consent Statement for the realization of the research with each of the students. Afterwards, the athletes were invited to answer the questionnaires. The researcher mediated throughout the data collection. Data collection occurred after approval by the Human Research Ethics Committee of Maringá State University (approval protocol number: 2831186).



## Data analysis

For data analysis, descriptive statistics were initially used to characterize the sample: relative (percentage) and absolute (n) frequency, median (Md) and interquartile interval (Q1-Q3). Inferential statistical analysis was used to evaluate the objective of the study. First, the distribution of the data was analyzed by means of the Kolmogorov-Smirnov test. When it was found that the data had no normal distribution, the Spearman test was used to correlate the heels of the construct dimensions.

For the correlation analysis, a significance level of 95 % ( $p < 0.05$ ) was adopted. It is highlighted that the correlation indexes were categorized according to the cut-off adaptation, suggested by **Mitra and Lankford, (1999)**, which are: 0.00 to 0.19, very weak correlation; 0.20 to 0.39, weak correlation; 0.40 to 0.59, moderate correlation; 0.60, to 0.79, strong correlation; 0.80 to 1.00, very strong correlation.

## RESULTS

Most of the athletes studied were in basic education (59.6 %), did not practice any other sport (75.5 %), trained with the school basketball team and attended training sessions in another sport institution in the city (43), 4 %), lived close to the training sites (66 %), were over 13 years old (60.4 %), trained for over a year (62.7 %) and participated in basketball training for over four hours a week (52.8 %) (Table 1).

**Table 1.** - Socio-demographic characteristics of basketball athletes

Socio-demographic characteristics	n (%)
<b>Level of education</b>	
Fundamental (1st to 9th year of primary education)	31 (59,6%)
Middle (1st to 3rd year of secondary school)	21 (40,4%)
Practice of another modality	
<b>Yes</b>	13 (24,5%)
<b>No</b>	40 (75,5%)
Training place	
<b>School</b>	19 (35,8%)
<b>Out of the school</b>	11 (20,8%)
<b>Both places</b>	23 (43,4%)
Perception of the distance from the training place	
<b>Distant</b>	18 (34%)
<b>Near</b>	35 (66%)
Age range	
<b>Up to 14 years</b>	32 (60,4%)
<b>More than 15 years</b>	21 (39,6%)
Practice time	
<b>Up to one year</b>	19 (37,3%)
<b>One year or more</b>	32 (62,7%)
Hours of weekly training	
<b>Up to 3 hours per week</b>	25 (47,25%)
<b>4 Hours or more</b>	28 (52,8%)



In relation to the concept motivation for sport, it was observed that the intrinsic motivation dimensions had greater heel, when compared to the extrinsic dimensions. In addition, the de-motivation dimension presented a low index (Table 2).

**Table 2.** - Internal correlation of the concept motivation for sport

Dimensions	1	2	3	4	5	6	7	Md (Q1-Q3)
1 - MI <i>know</i>	1							5,75 (4,12-6,50)
2 - MI <i>Perform</i>	0,699*	1						5,25 (4,25-6,25)
3 My <i>Experiment</i>	0,696*	0,633*	1					6,00 (4,75-6,37)
4 - ME <i>Identify</i>	0,526*	0,501*	0,634*	1				4,00 (3,00-5,37)
5 - ME <i>Introjection</i>	0,414*	0,403*	0,476*	0,514*	1			4,00 (2,50-5,37)
6 - ME <i>External Relationships</i>	0,492*	0,369*	0,502*	0,587*	0,571*	1		2,50 (2,00-4,00)
7 - <i>Demotivation</i>	0,167	-0,013	0,258	0,321*	0,203	0,281*	1	1,50 (1,00-2,37)

**Legend:** \*Significant correlation ( $p < 0.05$ ) MI: Intrinsic Motivation; ME: Extrinsic Motivation.

Regarding the internal correlations of the concept motivation for sport, strong correlations were found between the two: Intrinsic Motivation *know* and Intrinsic Motivation *perform* (0.699); Intrinsic Motivation *perform* and Intrinsic Motivation *experiment* (0.696); Intrinsic Motivation *know* and Intrinsic Motivation *experiment* (0.633) and Intrinsic Motivation *experiment* and Extrinsic Motivation *identify* (0.634) (Table 2).

Despite this, it was found that most of the correlations identified were moderate, where the correlations that reached this relationship were: Intrinsic Motivation *know* with Extrinsic Motivation *identify* (0.526); Intrinsic Motivation *perform* with Extrinsic Motivation *identify* (0.501); Intrinsic Motivation *know* with Extrinsic Motivation *introjection* (0,414); Intrinsic Motivation *perform* with Extrinsic Motivation *Introjection* (0,403); Intrinsic Motivation *Experiment* with Extrinsic Motivation *Introjection* (0,476); Extrinsic Motivation *Identify* with Extrinsic Motivation *Introjection* (0,514); Intrinsic Motivation *know* with Extrinsic Motivation *External relations* (0,492); Intrinsic Motivation *Experiment* with Extrinsic Motivation *External relations* (0,502); Extrinsic Motivation *Identify* with Extrinsic Motivation *External relations* (0,587) and Extrinsic Motivation *Introjection* with Extrinsic Motivation *External relations* (0,571). Finally, three weak correlations between them were evidenced: Intrinsic Motivation to carry out *External relations* with Extrinsic Motivation (0.369); Extrinsic Motivation *Identify* with *Demotivation* (0.321) and Extrinsic Motivation *External relations* with *Demotivation* (0.281) (Table 2).

In assessing the concept of basic psychological needs, it was found that the competence dimension presented the highest satisfaction score. On the other hand, the autonomy dimension showed the lowest satisfaction index (Table 3).



**Table 3.** - Internal correlation of the concept of basic psychological needs for sport

Dimensions	1	2	3	Md (Q1-Q3)
1 - Autonomy	1			3,25 (2,75-4,00)
2 - Competence	0,532*	1		4,00 (3,12-4,50)
3 - Relationships	0,367*	0,490*	1	3,75 (3,25-4,25)

**Legend:** \*Significant correlation ( $p < 0.05$ )

With regard to the internal correlations of the concept of basic psychological needs, it was observed that the Autonomy (0.532) and Relationship (0.490) dimensions were moderately correlated with the dimension Competence. However, a weak correlation was identified between the dimensions, Relationships and Autonomy (0.367) (Table 3).

When analyzing the correlation of the concepts of basic psychological needs and motivation for sport, it was found that the dimension Autonomy had a moderate correlation with all the intrinsic and extrinsic motivation dimensions (from 0.401 to 0.559). The dimension Competence presented strong correlations with the Extrinsic Motivation dimension Introjection (0.643); moderate correlations with the Intrinsic Motivation Experiment (0.416) and Extrinsic Motivation External relations (0.513) and weak correlations with the dimensions: Intrinsic Motivation know (0.281), Intrinsic Motivation Perform (0.248) and Extrinsic Motivation Identifying (0.344). The dimension Relationships did not present significant correlation with the dimensions of intrinsic motivation, although it had moderate correlation with the dimension Extrinsic Motivation Identify (0.411) and weak correlations with the dimension Extrinsic Motivation Introjection (0.296) and Extrinsic Motivation External relationship (0.323) (Table 4).

**Table 4.** - Correlation between the concepts of motivation and basic psychological needs for sport

Dimensions	Autonomy	Competence	Relationships
MI <i>know</i>	0,559*	0,281*	0,070
MI <i>Perform</i>	0,401*	0,248	-0,062
MI <i>Experiment</i>	0,559*	0,416*	0,258
ME <i>Identify</i>	0,418*	0,344*	0,411*
ME <i>Introjection</i>	0,550*	0,643*	0,296*
ME <i>External</i>	0,584*	0,513*	0,323*
<i>Relationships</i>			
Demotivation	0,126	0,038	0,079

**Legend:** \*\*Significant correlation ( $p \leq 0, 05$ ).





## DISCUSSION

When analyzing the profile of the sample of this study, it was evident that the young athletes were mostly in fundamental education (1st to 9th year of primary education in Brazil), did not practice any other modality, trained at school and also in another part of the city, lived close to the training place, were over 13 years old and trained for more than four hours per week. These characteristics can be explained because in secondary education (1st. to 3rd. year of high school in Brazil), athletes begin to have other concerns and pressures such as entering university, which can lead to the abandonment of sports practices (Marques & Samulski, 2009). In addition, basic education athletes are younger, in the period of initiation to sports practice and have greater protection from their families, when compared to older athletes (Ryan & Deci, 2019; Vieira *et al.*, 2013).

Initially, it is highlighted that the dimensions of intrinsic motivation are directly related to personal factors, which consequently depend on the subject himself. In another sense, the dimensions of extrinsic motivation are associated with factors that do not depend exclusively on the athlete, such as environmental factors, performance in the modality and importance of sport in the life of the athlete (Costa *et al.*, 2011).

Intrinsic motivations had the highest indexes, which shows that the interest in the practice of the sport modality is more spontaneous and does not depend, to a great extent, on the external factors associated with it. A study with taekwondo athletes corroborates this argument; in this one, the athletes showed greater heels related to intrinsic motivation (Bento *et al.*, 2018). In addition, it is identified that the motivation for the practice of the modality is associated to pleasure and fun, which is connected to the stimulating experiences (intrinsic motivation), to the achievement of the objectives and to the knowledge of the activity (intrinsic motivations) (Vieira *et al.*, 2013).

Extrinsic and intrinsic motivations were moderately correlated. In fact, both motivations are influenced by each other, as they are poles of a motivational continuum. In a contradictory way, it was found a weak correlation between extrinsic motivation for external regulation and intrinsic motivation perform. This may be associated with external environmental factors, such as financial rewards, trophies, among others, that make pleasure in the modality be left aside (Costa *et al.*, 2011).

It is noted that the intrinsic motivation dimension of experimenting presented a strong correlation with the extrinsic motivation dimension of identification. In this sense, athletes who seek to actively participate in sports tend to have stimulating experiences at the same time. This can be explained by the fact that the experience of these sports can favor the development of the athletes (Costa *et al.*, 2011). In addition, it can be verified that not all the dimensions of the concepts of motivation and basic psychological needs showed significant correlation with demotivation. This fact indicates that, the commitment of young athletes with competitions and training awakens positive feelings towards the modality. Moreover, this leads to the absence of demotivation among the athletes, who showed high intrinsic motivation, moderate extrinsic motivation (Table 2) and moderate feelings of having autonomy, competition and good relationships (Table 3).

On the internal correlations of the concept of basic psychological needs, it was observed that the competence dimension was moderately correlated with the relationship and autonomy dimensions. In this sense, it was identified that, in young athletes, the greater the perception that the athlete has of his competence, the more



comfortable and confident he will be in relating with his peers and even in making decisions during the practice of the modality (Deci, Ryan & Guay, 2013).

The dimensions of relationships and autonomy were low correlated, which is an indication of this link. In fact, Grolnick, (2003) states that autonomous support is characterized by the commitment of the child/youth, and, consequently, it is fundamental for development both in the family and in sports. In this case, the development of autonomy does not happen in conjunction with good relationships. Autonomy must be developed first and relationships later, teaching the athlete to live together socially. In addition to this, the motivational focus is centered on intrinsic motivation, making the student enjoy achieving goals and obtaining pleasure from new learning (Vieira *et al.*, 2013).

The results showed that the competence dimension was strongly correlated with the extrinsic motivation dimension introjection, which may be the result of the pressures athletes place on themselves or of constraints due to errors and failures that may be occurring in their practice, which, therefore, affect the athlete's competition. Thus, it is observed that athletes feel pressure, both for positive results of the team, and for their own pressure for their development in the sport (Vissoci, Vieira, Oliveira, & Vieira, 2008).

Autonomy showed moderate correlation with intrinsic and extrinsic motivations. Thus, the more autonomous the athlete is, the more intrinsically and extrinsically motivated he will be. This confirms that athletes who manage to make choices are more motivated. In line with this result, Fiorese *et al.*, (2017) pointed out that when an athlete feels more autonomous and competent to perform his tasks in training, he becomes more committed to the sport he practices. However, the opposite is also true, less motivated athletes may have less autonomy in choosing their actions directed at sport; thus, it can be understood that the development of autonomy corresponds directly to good intrinsic and extrinsic motivation (Table 4). It can be stated that, for older ages, good autonomy is fundamental for the athlete to be motivated, since they must feel capable and consequently competent.

It is highlighted that competence showed higher correlation rates with extrinsic motivation dimensions. This seems to show that the competence has a relationship with the motivation linked to the process of experimentation of game situations, as well as, with the relationships established through the sport practice. Thus, the greater the competence, the greater the capacity to assimilate the objectives, to relate to each other and to experience the playing activities. In that sense, Soares *et al.*, (2013) showed that competition was very relevant for athletes who were new to basketball. Garcia, Weis and Valdivieso, (2005) showed that younger athletes have more competence and less autonomy, while older ones have more competence along with autonomy.

When evaluating the dimension relationships, a moderate correlation was evident with the extrinsic motivation of identifying weak correlations with the introjection and external relationship motivation dimensions. Then, the better the relationship of the young athlete with coaches, teammates and family members, the more extrinsically motivated he will be with the aspects associated with identification, introjection and external relations, linked to the sport modality. This result corresponds with the literature on the topic, which describes that the actions of coaches, friends, training partners and family influence the insertion and continuation of the sport practice (Deci & Ryan, 2012; Balaguer, *et al.*, 2015).



It should be noted that the limitations of this study are associated with the non-differentiation between male and female motivational aspects, because the random selection of the sample allowed researching few athletes. Despite this, it is observed that the results found may represent a theoretical contribution for those involved in the training of young basketball athletes to understand the relationship between motivational aspects related to their practice.

In general, it is concluded that the intrinsic motivation dimensions are more representative within the motivation construct and the competence dimension is more representative in the basic psychological needs construct for exercise. In other words, the personal feeling of developing and improving basketball skills is a marker for the group investigated, determining the level of motivation, as well as the perception of satisfaction with the basic psychological needs for the exercise.

In addition, it was identified that the dimensions of competence and autonomy were related to intrinsic and extrinsic motivations. However, the relationships had a greater correspondence with the extrinsic motivation. Thus, it was found that coexistence with peers is associated with social acceptance, which can be mediated by a good performance in the practice of the modality.

It is suggested that future studies deepen the research in relation to this thematic, mainly relating motivation, technical and tactical performance and the different categories that represent the sport initiation, pointing out its consequences for the context of the modality.

## **BIBLIOGRAPHICAL REFERENCES**

- Arias, A. G., Castuera, R. J., Arroyo, P. M., Navarrete, B. M., Álvarez, F. D. V., & González, L. G., (2010). Análisis de la motivación intrínseca a través de las necesidades psicológicas básicas y la dimensión subjetiva de la toma de decisiones en jugadores de voleibol. *Revista Iberoamericana de Psicología Del Ejercicio y El Deporte.*, 5, 29-43.
- Bara Filho, M., Andrade, D., Miranda, R., Nuñez, J. L., Albo, J. M., & Ribas, P. R. (2011). Preliminary validation of a Spanish version of the Sport Motivation Scale. *Universitas Psychologica*, 102(3), 919-930.
- Balaguer, I., Castillo, I., Duda, J. L., Balaguer, I., Castillo, I., Ródenas, L., & Fabra, P. (2015). Os treinadores como promotores da coesão de equipa. *Psicología Del Deporte*, 15, (1) 233-242. Disponible en: [http://scielo.isciii.es/scielo.php?script=sci\\_arttext&pid=S1578-84232015000100022](http://scielo.isciii.es/scielo.php?script=sci_arttext&pid=S1578-84232015000100022)
- Barbosa, V. B. C., Contessoto, L. C., Anversa, A. L. B., & Refundini, L. B. (2018). Diferença motivacional entre praticantes iniciantes e veteranos do Taekwondo. *Caderno de Educação Física e Esporte*, 16(1), 41-46. Recuperado de <https://dialnet.unirioja.es/servlet/articulo?codigo=6722990>
- Brière, N., Vallerand, R., Blais, M., & Pelletier, L. (1970). Développement et Validation d'une Mesure de Motivation Intrinsèque, Extrinsèque et d'Amotivation en Contexte Sportif: L'Échelle de Motivation dans les Sports (ÉMS). *International Journal of Sport Psychology*, 465-489. Recuperado de [https://www.researchgate.net/publication/232440657\\_Developpement\\_et\\_Validation\\_d'une\\_Mesure\\_de\\_Motivation\\_Intrinseque\\_Extrinseque\\_et\\_d'Amotivation\\_en\\_Contexte\\_Sportif\\_L'Echelle](https://www.researchgate.net/publication/232440657_Developpement_et_Validation_d'une_Mesure_de_Motivation_Intrinseque_Extrinseque_et_d'Amotivation_en_Contexte_Sportif_L'Echelle)



\_de\_Motivation\_dans\_les\_Sports\_EMS\_Development\_and\_validation\_of\_a\_scale\_on

- Costa, L. C. da, Maroco, J., & Vieira, L. F. (2017). Validation of the basic psychological needs in exercise scale (BPNES). *Journal of Physical Education*, 28(1) 1-8. Disponible en: [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S2448-24552017000100146](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S2448-24552017000100146)
- Costa, L., Passos, P. C. B., Souza, V. M., & Vieira, L. (2017). Physical education and sports: Motivation for school daily practice. *Movimento*, 23, 935-948. Disponible en: <https://www.cabdirect.org/cabdirect/abstract/20173384689>
- Costa, V. T., Albuquerque, M. R., Lopes, M. C., Noce, F., Costa, I. T., Ferreira, R. M., & Samulski, D. M. (2011). Validação da escala de motivação no esporte (SMS) no futebol para a língua portuguesa brasileira. *Revista Brasileira de Educação Física e Esporte*, 25(3), 537-546. Disponible en: [http://www.scielo.br/scielo.php?pid=S1807-55092011000300015&script=sci\\_abstract&tlng=pt](http://www.scielo.br/scielo.php?pid=S1807-55092011000300015&script=sci_abstract&tlng=pt)
- Deci, E. L., & Ryan, R. M. (1985). Intrinsic Motivation and Self-Determination in Human Behavior. *Contemporary Sociology*, 17(2), 253. Disponible en: <https://www.springer.com/gp/book/9780306420221>
- Deci, E. L., Ryan, R. M. (2012). Motivation, personality, and development within embedded social contexts: An overview of self-determination theory. In R. M. Ryan (Ed.), *Oxford handbook of human motivation* (pp. 85-107). Oxford, UK: Oxford University Press. doi: Disponible en: 10.1093/oxfordhb/9780195399820.001.0001
- Deci, E. L., Ryan, R. M., Guay, F. (2013). Self-determination theory and actualization of human potential. In D. McInerney, H. Marsh, R. Craven, & F. Guay (Eds.), *Theory driving research: New wave perspectives on self processes and human development* (pp. 109-133). Charlotte, NC: Information Age Press. Disponible en: [https://www.researchgate.net/publication/284544099\\_Self-determination\\_theory\\_and\\_actualization\\_of\\_human\\_potential](https://www.researchgate.net/publication/284544099_Self-determination_theory_and_actualization_of_human_potential)
- Fiorese, L., Pizzo, G. C., Contreira, A. R., Lazier-Leão, T. R., Moreira, C. R., Gaion Rigoni, P. A., & Do Nascimento Junior, J. R. A. (2017). Associação entre motivação e coesão de grupo no futebol profissional: o relacionamento treinador-atleta é um fator determinante? *Revista de Psicologia Del Deporte*, 27(4), 51-57. Disponible em: <https://ddd.uab.cat/record/187802>
- García, F. G., Weis, G., & Valdiviesco, M. N. (2005). Motivos de participación deportiva de niños brasileños \* atendiendo a sus edades. *Pedagogía Deportiva*, 2005, 29-36. Disponible en: <https://core.ac.uk/download/pdf/39141030.pdf>
- Gil, A. C. (2002). *Como Elaborar Projetos de Pesquisa*. São Paulo: Atlas. Disponible en: [http://www.urca.br/itec/images/pdfs/modulo%20v%20-%20como\\_elaborar\\_projeto\\_de\\_pesquisa\\_-\\_antonio\\_carlos\\_gil.pdf](http://www.urca.br/itec/images/pdfs/modulo%20v%20-%20como_elaborar_projeto_de_pesquisa_-_antonio_carlos_gil.pdf)
- Grolnick, W. S. (2003). *The psychology of parental control: How well-meant parenting backfires*. Mahwah, NJ: Erlbaum. Disponible en: <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.0022-2445.2005.00br1.x>



- Mallia, L., Lucidi, F., Zelli, A., Chirico, A., & Hagger, M. S. (2019). Predicting moral attitudes and antisocial behavior in young team sport athletes: A self determination theory perspective. *Journal of Applied Social Psychology, 49*(4), 249-263. Disponible en: [https://iris.uniroma1.it/retrieve/handle/11573/1262120/1107515/Mallia\\_Predicting\\_2019.pdf](https://iris.uniroma1.it/retrieve/handle/11573/1262120/1107515/Mallia_Predicting_2019.pdf)
- Marques, M. P., & Samulski, D. M. (2009). Análise da carreira esportiva de jovens atletas de futebol na transição da fase amadora para a fase profissional: escolaridade iniciação, contexto sócio-familiar e planejamento da carreira. *Revista Brasileira de Educação Física e Esporte, 23*(2), 10319. Disponible en: <http://www.revistas.usp.br/rbefe/article/view/16714>
- Mitra, A., Lankford, S. (1999). *Research methods in park, recreation, and leisure services. Champaign-Urbana. IL: Sagamore.* Disponible en: [https://books.google.com/cu/books/about/Research\\_Methods\\_in\\_Park\\_Recreation\\_and.html?id=6A56QgAACAAJ&redir\\_esc=y](https://books.google.com/cu/books/about/Research_Methods_in_Park_Recreation_and.html?id=6A56QgAACAAJ&redir_esc=y)
- Mouratidis, A., Vansteenkiste, M., Lens, W., & Sideridis, G. (2008). The motivating role of positive feedback in sport and physical education: evidence for a motivational model. *Journal of Sports Exercise and Psychology, 30*(2), 240-268. Disponible en: <https://www.ncbi.nlm.nih.gov/pubmed/18490793>
- Nakashima, F. S., do Nascimento Junior, J. R. A., Vissoci, J. R. N., & Vieira, L. F. (2018). Envolvimento parental no processo de desenvolvimento da carreira esportiva de atletas da seleção brasileira de ginástica rítmica: construção de um modelo explicativo. *Revista Brasileira de Ciências do Esporte, 40*(2), 184-196. Disponible en: [http://www.scielo.br/scielo.php?pid=S0101-32892018000200184&script=sci\\_abstract&lng=pt](http://www.scielo.br/scielo.php?pid=S0101-32892018000200184&script=sci_abstract&lng=pt)
- Pelletier, L. G., Tuson, K. M., Fortier, M. S., Vallerand, R. J., Brière, N. M., & Blais, M. R. (1995). Toward a New Measure of Intrinsic Motivation, Extrinsic Motivation, and Amotivation in Sports: The Sport Motivation Scale (SMS). *Journal of Sport and Exercise Psychology, 17*(1), 35-53. Disponible en: [https://www.researchgate.net/publication/266178539\\_Toward\\_a\\_New\\_Measure\\_of\\_Intrinsic\\_Motivation\\_Extrinsic\\_Motivation\\_and\\_Amotivation\\_in\\_Sports\\_The\\_Sport\\_Motivation\\_Scale\\_SMS](https://www.researchgate.net/publication/266178539_Toward_a_New_Measure_of_Intrinsic_Motivation_Extrinsic_Motivation_and_Amotivation_in_Sports_The_Sport_Motivation_Scale_SMS)
- Ryan, R. M., Deci, E. L. (2009). Promoting self-determined school engagement: Motivation, learning, and well-being. In Wenzel, K. R., Wigfield, A. (Eds.), *Educational psychology handbook series. Handbook of motivation at school* pp. 171-195. New York, NY, US: Routledge/Taylor e Francis Group. Disponible en: <https://psycnet.apa.org/record/2009-24219-009>
- Ryan, R. M., Deci, E. L. (2019). *Brick by brick: The origins, development, and future of self-determination theory. Advances in motivation science, 6*, 111-156. Disponible en: <https://www.sciencedirect.com/science/article/pii/S221509191930001X>
- Santana, W. C. (2005). Uma proposta de subsídios pedagógicos para o futsal na infância. *Revista Virtual EfArtigos, 03*(04), 19. Disponible en: <http://www.fundesporte.ms.gov.br/wp-content/uploads/2017/03/Uma-proposta-de-subsidios-pedagogicos-para-o-futsal-na-infancia.pdf>



- Soares, A. T., Reis, C. P., & Perufo, F. M. F. B. (2013). Aspectos motivacionais para a prática do basquetebol na iniciação esportiva de crianças de 9 a 14 anos da cidade de Castro/PR. *Educação Física Em Revista*, 7(3), 64-73. Disponible en: <https://portalrevistas.ucb.br/index.php/efr/article/view/4024>
- Vieira, L. F., Mizoguchi, M. V., Garcia Junior, E., & Garcia, W. F. (2013). Estilos Parentais E Motivações Em Atletas Jovens De Futebol De Campo. *Pensar a Prática*, 16(1), 183-196. Disponible en: <https://www.revistas.ufg.br/fef/article/view/16539>
- Vissoi, J. R. N., Vieira, L. F., Oliveira, L. P. De, & Vieira, J. L. L. (2008). Motivação E Atributos Morais No Esporte. *Revista Da Educação Física Da UEM*, 19(2), 173-182. Disponible en: [https://www.researchgate.net/publication/251066972\\_MOTIVACAO\\_E\\_ATRIBUTOS\\_MORAIS\\_NO\\_ESPORTE](https://www.researchgate.net/publication/251066972_MOTIVACAO_E_ATRIBUTOS_MORAIS_NO_ESPORTE)
- Vlachopoulos, S. P., & Michailidou, S. (2006). Development and initial validation of a measure of autonomy, competence, and relatedness in exercise: The Basic Psychological Needs in Exercise Scale. *Measurement in Physical Education and Exercise Science*, 10(3), 179-201. Disponible en: [https://www.tandfonline.com/doi/abs/10.1207/s15327841mpee1003\\_4](https://www.tandfonline.com/doi/abs/10.1207/s15327841mpee1003_4)  
Weinberg, R., Tenenbaum,
- G., McKenzie, A., Jackson, S., Anshel, M., Grove, R., & Fogarty, G. (2000). Motivation for youth participation in sport and physical activity: Relationships to culture, self-reported activity levels, and gender. *International Journal of Sport Psychology*, 31(3), 321-346. Disponible en: [https://www.researchgate.net/publication/235913962\\_Motivation\\_for\\_youth\\_participation\\_in\\_sport\\_and\\_physical\\_activity\\_Relationships\\_to\\_culture\\_self-reported\\_activity\\_levels\\_and\\_gender](https://www.researchgate.net/publication/235913962_Motivation_for_youth_participation_in_sport_and_physical_activity_Relationships_to_culture_self-reported_activity_levels_and_gender)
- Zambrin, L. F., Paludo, A. C., Santos, O. de S. P. M. dos, Oliveira, S. R. de S., Simões, A. C., & Serassuelo Junior, H. (2016). Análise do comportamento competitivo de atletas jovens e adultos de handebol. *Revista Brasileira de Educação Física e Esporte*, 30(2), 505-513. Disponible en: [http://www.scielo.br/scielo.php?script=sci\\_arttext&pid=S1807-55092016000200505](http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1807-55092016000200505)

#### **Conflict of interests:**

The authors declare not to have any interest conflicts.

#### **Authors' contribution:**

The authors have participated in the writing of the work and analysis of the documents.



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