

  <https://doi.org/10.56238/alookdevelopv1-064>

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**ABSTRACT**

The general objective of this study was to identify the reasons that lead adults to practice sport climbing, considering intrinsic and extrinsic factors. The methodology used here was to study specific

cases. It was concluded that climbers aim, mainly, the technical improvement through specific training for the sport of climbing, seeking to evolve in the sport besides maintaining good physical and mental conditions. Physical education professionals should be capable of prescribing targeted training for climbers, working on technical skills, and considering the importance of the sense of pleasure, in addition to improving physical fitness, quality of life, and health promotion. Climbers should also be aware of the importance of complementary activities, such as aerobic resistance and flexibility to improve their physical fitness.

**Keywords:** Motivation; Climbing, Physical activity.

## 1 INTRODUCTION

Climbing is a sport derived from mountaineering, which uses body strength and technique aiming to reach the top of a wall or rock wall. In the 80s and 90s sport climbing grew all over the world in a scenario where extreme difficulties were overcome. We can then define - there as the modality in which the practitioner uses arms and legs to climb blocks, cliffs, rock walls, ice, or mountains. To Pereira; Nista-Piccolo (2010) the positioning of the body leads to a static and/or dynamic balance movement to promote greater efficiency for the climber.

The climb began to be successful in Brazil in the first decade of the twentieth century, when five young people from Teresópolis, after six days of efforts, managed to reach the summit of the Dedo de Deus, in the Serra dos Órgãos, RJ. Since then, the number of practitioners has been increasing more and more (PEREIRA; NISTA-PICCOLO, 2010).

Some authors like Armbrust; Silva (2012) consider climbing as only a sport linked to nature, disregarding its practice in the urban environment. Until the 80s the sport was practiced only outdoors, in rocky mountains of varying sizes and altitudes, and due to this demand, there is now the possibility of practicing the sport indoors (indoor), in specific climbing gyms or gyms that also offer this modality.

Whenever we talk about climbing as a sport of high performance and competition, we relate it to systematized training, which aims at certain results, whether in competition events or high-performance tracks on the rock. In both situations the objective is to finish a road, that is, a path already

previously demarcated or conquered by another climber previously and that requires total commitment given its difficulty of movement (PEREIRA; NISTA-PICCOLO, 2010).

Strength, muscular endurance, flexibility, concentration, and motivation, are some benefits that climbing provides to its practitioners, and that led it to occupy third place in the ranking of Forbes magazine as one of the 10 best physical activities to practice, behind only Squash and Rowing. The concentration of the individual is so intense that he commits all his psychic energy to the activity in which he is involved (VIREIRA, 2011).

Climbing improves not only the physiological condition of the individual but also their psychological well-being, such as improvement in social interactions, self-control, and self-esteem (PEREIRAb, 2013).

In a sport whose challenge is to contradict the law of gravity, several factors must be analyzed, such as the size of the support base, line of gravity, height of the center of gravity, amount of mass, and amount of friction. Among the conditions that can improve performance in sports climbers within these parameters, we have the efficient use of the lower and upper limbs through techniques, footrests, maintenance of elbow movement, and range of motion. The flexibility facilitates the distribution and transfer of weight in support points of great joint amplitude, allowing to generate the necessary force to reach other support points (PEREIRA; NISTA-PICCOLO, 2010).

Another factor that directly affects the climber's performance is his motivation. Motivation is the process that mobilizes the organism to action, from a direct relationship between the environment and the object of satisfaction. So, for there to be motivation, it is necessary to have a need, an interest, and a stimulus, because there can be several reasons that move a climber. The search for overcoming limits or even contact with nature can be the determining reason for choosing the practice of activities such as climbing (PEREIRAb, 2013).

Motivation is a subject much discussed in psychology because the human being always has a reason that moves him, that drives him to practice an action or activity. The human being can be motivated by intrinsic factors or extrinsic factors. Motivation is responsible for the initiation, maintenance, and persistence of any activity (CONCHA-VIEIRA, 2017).

Intrinsic motivation is when the will comes from the individual himself to do such an activity, Pleasure arises with the activity itself, the activity itself is the goal, whether it is in the character of knowing, performing, or experiencing. Activities with intrinsic motivations are usually associated with psychological well-being, joy, interest, and persistence (PANSERA, 2016).

Extrinsic motivation is a motivation that suffers external factors, such as material awards or social criticism, whose main motivation is not the goal of the activity itself, that is when the satisfaction of the activity itself is not the main motivation (PANSERA, 2016).

Therefore, the general objective of this study is to identify the reasons that lead adults to practice sport climbing, considering the intrinsic and extrinsic factors.

This study is justified by the fact that the modality has been growing rapidly, which demands a better understanding of the origin of motivational aspects in climbing practitioners, aiming at better training of professionals in the area

## **2 METHODOLOGY**

The method used in this study is qualitative descriptive since it used a structured interview questionnaire containing 30 (thirty) questions with reasons that lead adults to practice sport climbing.

Regarding the type of research, qualitative research was chosen, since it studies the particularities and individual experiences of each climber to understand the motivation of the group.

In this study, the sample was composed of 30 (thirty) adult climbers of both sexes, and 5 (five) of them were opposed to participating in the interview.

The data collection instrument was the Questionnaire of Motivation of Sports Activities – QMAD translated and adapted version (FRIAS; SERPA, 1991) of the original version Participation Motivation Questioner – PMQ (GILL; GROSS; HUDDLESTON, 1983).

The procedure used for data collection was to gather data in an event in honor of Women's Day, which took place in a climbing gym in the region of Pampulha, in the city of Belo Horizonte.

Regarding ethical care, the free consent form was used, since the ICF is the document that provides the necessary clarifications to the research participant, allowing him to make an autonomous decision (clarified and without constraints) about his participation in a research project. It is also configured as ethical and legal protection for the researcher, since it manifests the participant's acceptance to be part of the study.

The QMAD is an instrument formed by 30 questions, being grouped in this study into 8, being factor 1 – Social Recognition, factor 2 – Group Activity, factor 3 – Physical Fitness factor 4 – Emotion, factor 5 – Competition, factor 6 – Technical Competence, the factor 7 – Affiliation and the factor 8 – Fun. This instrument is preceded by the following question: "People practice sports activities for". The answers are given on a Linkert-like scale, representing 1 – nothing important, 2 – little important, 3 – important, 4 – very important, and 5 – important.

## **3 RESULTS AND DISCUSSION**

After answering the 30 questions of the questionnaire, a table was elaborated (table 1) that shows the mean values of each item according to the Linkert scale. Analyzing the individual mean values of each item, we verified that the climbers consider as more important for the practice of sport

climbing for the reasons: of having fun with 4,917, doing physical exercise with 4,542 and overcoming limits, and learning new skills with 4,500. And as unimportant reasons the climbers point out: to beat the opponent, to win prizes with 1,250, to satisfy family and friends, and to satisfy the coach/teacher with 1,375.

Table 1: Mean and standard deviation.

		<b>N</b>	<b>AVERAGE</b>	<b>DEVIATION P.</b>
1	Improve technical skills	25	4,458	0,977
2	Be with friends	25	4,208	1,021
3	win from opponents	25	1,250	0,676
4	Travel	25	4,292	0,999
5	keep fit	25	4,417	0,830
6	have strong emotions	25	4,125	0,900
7	Teamwork	25	3,208	1,021
8	Satisfy family or friends	25	1,375	0,770
9	learn new skills	25	4,500	0,780
10	make new friends	25	3,625	1,173
11	Do something I'm good at	25	2,750	1,260
12	release tensions	25	4,250	0,897
13	win prizes	25	1,250	0,608
14	do physical exercise	25	4,542	0,658
15	take action	25	3,833	0,963
16	Develop team spirit	25	2,958	1,197
17	leave home	25	3,208	1,215
18	To compete	25	1,583	1,176
19	overcome limits	25	4,500	0,659
20	Belong to a group	25	2,875	1,424
21	have something to do	25	2,792	1,141
22	Be in good physical condition	25	4,417	0,881
23	To be recognized	25	1,500	0,780
24	overcome challenges	25	4,083	0,881
25	Satisfy the teacher/coach	25	1,375	0,824
26	Be recognized and have prestige	25	1,458	0,833
27	have fun	25	4,917	0,282
28	Use sports facilities	25	2,583	1,381
29	feel important	25	1,708	1,122
30	release energies	25	4,333	0,917

Source: Research data (2018).

When dividing into motivation factors (TABLE 2), it was found that the factor "Technical competence" was considered important with 4.479, and the factor "Social recognition" was considered unimportant with 1.875.

Table 2: Factors.

	M. PER ITEM	AVERA GE FACTOR	D. P. FACTO R
<b>Factor 1 - Social Recognition</b>			
23. Be known	1,500		
26. Be recognized and have prestige	1,458		
29. Feel-important	1,708		
13. Win prizes	1,250	<b>1,875</b>	<b>0,782</b>
17. Pretext for leaving home	3,208		
3. Beat opponents	1,250		
11. Do something I'm good at	2,750		
<b>Factor 2 - Group Activity</b>			
25. Satisfy the coach/teacher	1,375		
16. Develop team spirit	2,958	<b>2,604</b>	<b>0,832</b>
20. Belonging to a group	2,875		
7. Work as a team	3,208		
<b>Factor 3 - Physical Fitness</b>			
5. Keeping fit	4,417		
22. Being in good physical condition	4,417	<b>4,302</b>	<b>0,318</b>
14. Exercise	4,542		
15. Take action	3,833		
<b>Factor 4 – Emotion</b>			
6. Having strong emotions	4,125		
12. Release tensions	4,250	<b>4,302</b>	<b>0,157</b>
30. Release energy	4,333		
19. Push boundaries	4,500		
<b>Factor 5 – Competition</b>			
18. Compete	1,583	<b>2,833</b>	<b>1,768</b>
24. Overcoming challenges	4,083		
<b>Factor 6 - Technical Competence</b>			
9. Learn new skills	4,500	<b>4,479</b>	<b>0,029</b>
1. Improve technical skills	4,458		
<b>Factor 7 – Affiliation</b>			
2. Being with friends	4,208		
10. Make new friends	3,625	<b>3,069</b>	<b>1,496</b>
8. Satisfy family or friends	1,375		
<b>Factor 8 – Fun</b>			
28. Use sports facilities and equipment	2,583		
4. Travel	4,292	<b>3,646</b>	<b>1,139</b>
21. Have something to do	2,792		
27. Have fun	4,917		

Source: Research data (2018).



Composed of seven reasons, factor 1 called social recognition was considered the least important with an average of 1.875 and a standard deviation of 0.782 in the answers. This factor refers to aspects of motivation linked to social approval, prestige, recognition, and status. For Balbinotti (2008), motivation, a basic psychological process that helps in understanding the different actions and individual choices, is one of the determining factors of the way a person behaves.

According to Campos et al. (2011), current motivation in the practice of physical activities gains great proportion through the search for the delineated body and control of body weight. Understanding what motivates people to practice physical activity has been one of the greatest challenges of professionals involved in the area, considering that some research indicates that despite knowing the various benefits associated with the regular practice of physical activity, the number of sedentary people is still growing and has become something of concern about the health of the Brazilian population.

Four reasons represented factor 2, called Group Activity, such reasons can also be considered as reasons associated with social approval, being pointed out as important, presenting an average of 2.604, with a standard deviation of 0.832. According to Concha (2017), it is notorious that sports practice has as important for the development of healthy habits, showing the way to achieve its goals, stimulating discipline, teamwork, respect for opponents, and improved self-esteem, in addition to providing financial and social ascension.

For Silva; Pontes (2013), when intrinsically motivated, the subject enters the activity by his own will, that is, by the pleasure and satisfaction of the process of knowing it, exploring it, and deepening it. Intrinsically motivated activities are commonly associated with psychological well-being, interest, joy, and persistence.

Factor 3 also gathered four reasons and due to its connection with reasons of physical conditioning, sports practice, and health was called "Physical Fitness", being considered a totally important factor, since it presented an average of 4.302 with a deviation of 0.318.

Pansera (2016) states that, as for the specific reasons for the regular practice of physical activities, the following can be observed: stress control, health, sociability, competitiveness, aesthetics, and leisure. It is believed that by knowing the order of priorities between these reasons, it is possible to collaborate decisively with the permanence of the young person in the regular physical activity organized at school.

According to Guedes et al. (2012), motivation, from the Latin *movere*, can be defined as the direction and intensity of a subject's efforts. The direction of effort refers to a subject seeking, approaching, or being drawn into certain situations. The intensity of the effort refers to how much effort a subject puts into a given situation.

Called Emotion, factor 4 also has four motives linked to important intrinsic components, that is, the motivational impulse is one's own will for the activity. This factor was considered important, presenting an average equal to factor 3, of 4.302, but with a smaller deviation of 0.157.

According to Pereira (2013), for various motivated behaviors, incentives are more fundamental than balance. Incentives are defined as objects, events, or conditions that lead the subject to a particular action.

Factor 5, called "Competition", was considered important with a mean of 2.833 and a high standard deviation of 1.768. This factor refers to a certain sporting ambition. Guedes et al. (2012), say that competition provides situations capable of eliminating the fun and joy of playing, thus understanding the feelings of climbers in general point to pleasure in overcoming challenges, but not so much in competing.

According to Kings; Scotá (2016), theories of motivation are built by thinking about the nature of people and the factors that lead them to action. Mechanistic theories see the human organism as being driven by interactions between impulses, which are physiological, and stimuli from the environment, as shown so far. On the contrary, some theories see the organism as active, making its own decisions through choices, and initiating behaviors. Thus, it is believed that for any physical practice, the individual needs to be motivated to dedicate himself to the exercises continuously.

Rock; Marega (2010), human behavior is encouraged by three primary and universal psychological needs, fundamental for self-determination to develop. The first is "autonomy," which reflects the desire to participate in activities in which the possibility of choice is present. The second is "competence," which is linked to feeling empowered and confident to behave with a certain aptitude. Finally, there is the "social relationship", which deals with the need to realize that the behavior is recognized positively by other people or that the realization of this behavior facilitates socialization.

Factor 6 called "Technical Competence", pointed out by the climbers as the most important factor, presented an average of 4.479, with the lowest standard deviation of 0.029 presented. This motivation factor houses two items where climbers justify the practice of sport through self-realization goals associated with the mastery and improvement of sports skills.

According to Zenorini (2010), motivation refers to doing something because it is, inherently, something interesting or pleasant just for fun or a challenge. When a subject is intrinsically motivated, he enters the activity of his own volition, for the pleasure and satisfaction of knowing it, exploring it, and deepening it.

For Pereira (2013), a person does not need to go through all the stages of motivation. It is possible, at any time, to adopt a new regulation of behavior depending on previous experiences and

situational factors. That is exposure to an activity because of external regulation, for example, a reward can allow the subject to change the regulation, facing the interesting intrinsic properties of the activity.

With a structure that pointed to the denomination "Affiliation", factor 7 also gathered three items linked to the social approval of closer individuals such as family and friends. This factor was considered very important with a mean of 3.069 and a standard deviation of 1.496.

According to Guedes (2013), people practice physical exercises for various reasons, whether they are aesthetic, competition, the pursuit of pleasure, socialization, improving health and quality of life, or getting rid of the stress accumulated during the day.

Goncalves; Alchieri (2010), states that larger and longer-lasting studies should be conducted to evaluate the relationship between motivation and physical exercise. The authors suggest that significant factors for the practice of exercise, such as age, sex, and previous health conditions, for example, conducting these studies in different places and with different types of physical exercises, be analyzed in future studies.

Adding four items, factor 8 was called "Fun". It was considered very important with a mean of 3.646 and a standard deviation of 1.139. This factor is also linked to intrinsic motivation.

For Pereira (2008), regarding motivation, one sees the concern that people have in presenting themselves well to other people, thinking that this fact may be related, in a certain way, to the judgment that the person himself makes of himself. That is, there is the concern to be well-regarded by other people.

According to Vieira (2011), physical activity is beneficial both in the body and mind aspect, that is, biological and mental. This author points to improvements in cardiorespiratory capacity, and increased life expectancy, among others, as examples of benefits that the practice of exercise provides to people. At the psychological level, the positive aspects are related to increased levels of self-esteem, self-image, decreased stress levels and so many others.

#### **4 CONCLUSION**

The general objective of this study was to identify the reasons that lead adults to practice sport climbing, considering the intrinsic and extrinsic factors. It was observed through the results obtained that the most relevant reason for the sample was "to increase technical competence, learning new skills and improving technical qualities". Other factors also relevant were "physical fitness and emotion", showing that climbers also seek to maintain good physical and mental conditions in a pleasurable way. The least relevant was "social recognition, which falls into being known, being recognized and having prestige, feeling important, winning awards, a pretext to leave home, to beat opponents and do something I am good at."



It was concluded that climbing practitioners aim, mostly, at technical improvement through specific training for the modality, seeking to evolve in the sport in addition to maintaining good physical and mental conditions in a pleasurable way.

Physical education professionals should be trained to prescribe training directed to climbers, working on technical skills and taking into account the importance of the sensation of pleasure for practitioners of this sport, in addition to improving physical conditioning, quality of life, and health promotion. Climbers should also be aware of the importance of complementary activities, such as aerobic endurance and flexibility to improve their fitness.

It is believed that future work on this theme will also be interesting since it is also relevant to analyze the organizational structure of academies and their influence on the practice of indoor climbing.

## REFERENCES

- Armbrust, i.; silva, s. A. P. S. Pluralidade cultural: os esportes radicais na educação física escolar i. Revista de educação física da ufrgs. Porto alegre, v. 18, n. 1, jan./mar., 2012.
- Balbinotti, m. A. A. Motivação à prática regular de atividade física: um estudo exploratório com praticantes em academias de ginástica. Revista brasileira de educação física e esporte. São paulo, v. 22, n. 1, jun./set., 2008.
- Balbinotti, m. A. A.; capozzoli, c. J. Motivação à prática regular de atividade física: um estudo exploratório com praticantes em academias de ginástica. Revista brasileira de educação física e esporte. São paulo, v. 22, n. 1, jun./set., 2008.
- Campos, l. T. S.; vigario, p. S.; lurdo, s. M. A. Fatores motivacionais de jovens atletas de vôlei. Revista brasileira de ciência do esporte. Porto alegre, v. 33, n. 2, nov., 2011.
- Concha v. A. M. Et al. Recursos de motivação para auto-regulação na atividade física em estudantes universitários. Cuadernos de psicología del deporte. Espanha, v. 17, n. 2, mar., 2017.
- Gil, a.c. métodos e técnicas de pesquisa social. São paulo: editora atlas, 1999.
- Gonçalves, m. P.; alchieri, j. C. Motivação à prática de atividades físicas: um estudo com praticantes não-atletas. Psico-usf. São paulo, v. 15, n. 1, jan./abr., 2010.
- Grau, pau garcía grau. Motivação na pratica de futsal. 2017.
- Guedes, d. P. Exercise motives in a sample of brazilian university students. Revisa da educação física. Rio claro, v.19 n.3, jul./set., 2013.
- Guedes, d. P.; legnani, r. F. S.; legnani, e. Motivos para a prática de exercício físico em uma amostra de universitários brasileiros. Motriz: revista de educação física. São paulo, V. 26, n. 4, out./dez., 2012.
- Martinelli, s.c.; bartholomeu, d. Escala de motivação acadêmica: uma medida de motivação extrínseca e intrínseca. Avaliação psicológica. Porto alegre, v.6, n.1, jun., 2007.
- Monteiro, c. M.; bonone, c. G. Os fatores psicológicos no desempenho de escaladores esportivos amadores de caxias do sul. Revista do centro da saúde – cecs. João pessoa, v. 4, n. 1, ago., 2014.
- Pansera, s. M. Motivação intrínseca e extrínseca: diferenças no sexo e na idade. Psicologia escolar e educacional. Psicologia escolar e educacional. São paulo, v. 20, n. 2, mai./ago., 2016.
- Pereira, d. W; et al. Esportes radicais, de aventura e ação: conceitos, classificações e características. Revista corpoconsciência. Cuiabá, v. 12, n. 1, jan./jun., 2008.
- Pereira, d. W.; nista-piccolo, v. L. Escalada: um esporte na ponta dos dedos. Revista brasileira de ciência e movimento. Distrito federal, v. 18, n. 1, jul., 2010.
- Pereira, l. Estados emocionais de estresse e cortisol salivar na escalada em rocha. 2013. 112 f. Tese - (doutorado) - universidade estadual paulista júlio de mesquita filho, instituto de biociências de rio claro, 2013.

Pereira, f. C. Motivação para a prática de atividades físicas de aventura. 2013. 48 f. Trabalho de conclusão de curso (licenciatura - educação física) - universidade estadual paulista, instituto de biociências de rio claro, 2013

Pereira no, g. P. Et al. Surfe é estilo de vida: motivação para a prática em mulheres jovens. Revista do programa de pós graduação interdisciplinar em estudos do lazer/ufmg. Belo horizonte, v. 20, n. 1, mar., 2017.

Reis, l. F. C. M.; scotá, t. C. C. Aspectos motivacionais no futsal feminino amador de porto alegre. Revista científica semana acadêmica. Fortaleza, v. 01, n. 8, jul., 2016.

Rocha, a. S.; marga, m. The impact of motivational interventions for increasing physical activity. Einstein. São paulo, v. 8, n. 1, jan./mar., 2010.

Vieira, l. F. Estado de fluxo em praticantes de escalada e skate downhill. Motriz: revista de educação física. São paulo, v. 17, n. 4, out./dez., 2011.

Yin, r.k. estudo de caso: planejamento e métodos. Porto alegre: editora: bookman, 2005.

Zenorini, r. P. C. Escala de metas de realização como medida de motivação para aprendizado. Red de revistas científicas de américa latina y el caribe, españa y portugal. América latina, v. 44, n. 2, dez., 2010.