

Commitment to Sport Changes Psychological Needs: A Study on Individuals Who Regularly Engage in Fitness

El compromiso con el deporte modifica las necesidades psicológicas: Un estudio sobre individuos que practican fitness con regularidad

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Abstract. It is as important to be able to continue sport as it is to start sport. In some sports branches, not practicing sports may cause some psychological problems. For this reason, this study aims to explain what changes individuals who train 3 days a week for at least 12 months in bodybuilding centers feel when they disrupt their training program and to show the relationship between their psychological needs in sports and their commitment to sports. The sample group of the study, in which quantitative and qualitative research model was used, consisted of 249 people (66 female, 183 male) who participated in sports for body development. Personal information form, open-ended questionnaire, sport psychological needs scale and sport commitment scale were used for the research. Content analysis was used in the qualitative data analysis of the study. Linear regression and Pearson correlation analysis were used for quantitative data analysis. The results of the qualitative data study show that the participants have positive emotions when they exercise and negative emotions when they do not exercise. The examination of quantitative data revealed that there was a positive weak relationship between psychological needs and sport addiction of the research group. In the study, it was concluded that the participant group enjoyed life, felt more talented, and were happy when they practiced sports, while when they did not spend time on sports, they felt a lack of time in their lives and experienced a sense of dissatisfaction.

Keywords: Fitness, Commitment to sport, psychological needs in sport, chronic exercise

Resumen. Continuar practicando deportes es tan importante como comenzar. La falta de actividad física en ciertas disciplinas deportivas puede causar problemas psicológicos. Por esta razón, este estudio busca explicar los cambios que experimentan las personas que entrenan en centros de musculación tres días a la semana durante al menos doce meses al interrumpir su programa de entrenamiento, así como mostrar la relación entre sus necesidades psicológicas deportivas y su compromiso con el deporte. El estudio examinó a 249 personas (66 mujeres y 183 hombres) que se dedicaban al ejercicio físico a través del deporte, utilizando un modelo de investigación cuantitativo y cualitativo. La investigación utilizó una escala de compromiso deportivo, una escala de necesidades psicológicas deportivas y un formulario de información personal. El análisis de contenido fue utilizado para el análisis cualitativo de los datos, mientras que el análisis cuantitativo utilizó la regresión lineal y el análisis de correlación de Pearson. Según los resultados cualitativos del estudio, los participantes experimentan sentimientos positivos al participar en el ejercicio y sentimientos negativos al no hacerlo. En el grupo estudiado, el análisis cuantitativo encontró una relación positiva, aunque débil, entre las necesidades psicológicas y la actividad deportiva. Se descubrió que los participantes disfrutaban más de la vida, se sienten más capacitados y felices cuando practican deporte, mientras que cuando no dedican tiempo al deporte, se sienten vacíos e insatisfechos.

Palabras clave: Condición física, compromiso con el deporte, necesidades psicológicas en el deporte, ejercicio crónico.

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Introduction

Nowadays, athletes spend a lot of effort to achieve success or to maintain their success. This process involves intense competition for athletes both physically and psychologically. In the face of this challenging process, the psychological needs and emotional states that significantly affect the performance of athletes attract the attention of researchers (Kelecek and Gokturk, 2017).

Sport creates strong emotional effects on both participants and spectators, sometimes positive and sometimes negative (Channg et al., 2020). These emotions can cause an athlete to exhibit functional or dysfunctional behaviours that will affect the outcome during the competition. Commitment to sport, which is considered as the opposite of burnout that negatively affects the athlete's performance, is expressed as consistent and sustainable experiences and includes the concepts of pleasure, belief, effort and energy (Lonsdale et al., 2007). On the other hand, the concept of sports commitment, which creates positive effects and is desired to be in athletes, is a state of

mental realisation characterised by vigour, dedication and focus (Batucan et al., 2019).

Bodybuilding is a competitive sport in which muscle size, symmetry, low body fat levels and stage presentation are evaluated together. In this sport, where success depends especially on body composition, athletes should display their best physical appearance on the day or days of competition (Escalante et al., 2021; Graybeal et al., 2020).

According to the basic psychological needs theory, people have three basic psychological needs that are important for optimal feelings of well-being and autonomous motivation during an activity. These are autonomy, competence, and relatedness or experiencing needs. In activities where the need for autonomy is fulfilled, individuals will have the opportunity to experience that their feelings, thoughts and actions arise from their own will and preferences. If the need for relatedness is met, individuals will have a sense of belonging by feeling accepted by others. When the need for competence is met, individuals feel that they can overcome the difficulties necessary to succeed in an activity and that they are capable

(Deci and Ryan, 2000; Elsborg et al., 2022). Confirmed that when a person participates in an activity that fulfills these needs, the individual will experience well-being and enjoyment and develop autonomy motivation for the activity, and therefore is more likely to continue to participate (Deci and Ryan, 2013). Concluded in his study on the relationship between exercise addiction and happiness that individuals are happy when they exercise and feel depressed when they cannot exercise. In previous studies, it has been determined that people are happier when they exercise, but excessive exercise triggers a kind of addiction (Tekkurşun-Demir, 2022). Continuous participation also supports the development of positive emotions by increasing commitment to sport.

In this research, it was tried to reveal how sports have an effect on individuals, what kind of feeling occurs when it cannot be done or when time cannot be allocated due to various problems, to what extent there are psychological needs in sports and to what extent the degree of commitment to sports can affect the developments in our lives; It was aimed to examine the dynamic relationship between the psychological needs in sports and the commitment to sports of bodybuilding athletes who do sports at least 12 months, 3 days a week and more. In order to provide more in-depth solutions to the research, a short interview was conducted with the participants and the questions "How do you feel when you do sports?" and "How do you feel when you do not do sports?" were asked to collect qualitative data. Subsequently, numerical information was gathered to examine the individuals' dedication to athletics and their psychological requirements in athletics. By drawing a common conclusion from the researchers' responses to the questions and the average scores they obtained from the scale, the quantitative and qualitative findings were examined.

Material and methods

This section includes information about the study method, research group, data collection techniques and statistics of the data.

Participants

In bodybuilding centers, it has been stated that individuals are happy because they go to do sports of their own volition, and in cases where they cannot go, they feel that something is missing in their lives. In our study, quantitative and qualitative methods were used together in order to present the situation more realistically. Collecting quantitative and qualitative data at the same time is called an enriched design (Cresswell, 2007). The aim of this design is to make the analysis stronger in the research. Thanks to the mixed model, the research was further strengthened and its reliability was increased (Cresswell, 2007).

In this study, the minimum sample size was determined by G-Power software (version 3.1.9.7). In the power

analysis performed according to the results of this study ($\alpha=0.05$ $1-\beta(\text{power})=0.80$, actual power=80.7) and the effect size was taken as 0.45, it was determined that there should be at least 16 subjects for each group in our study. The research group consists of 249 people randomly selected from bodybuilding centers in Bandırma district of Balıkesir province. In line with the objectives of the study, the criterion sampling method determined by the researcher was used (Yıldırım and Simsek, 2013).

Amateur athletes who volunteered for this study, who have been attending fitness centers for at least 1 year, who train at least 3 days a week. Participants with chronic diseases that would interfere with their training programs, those with skeletal muscle diseases, and those with body mass indexes above 24.9 were not included.

Table 1.
Demographic characteristics of the research group.

Features Categories		f	%
Gender	Female	66	26.5
	Male	183	73.5
Age	15-20 Years	52	20.9
	21-25 Years	67	26.9
	26-30 Years	52	20.9
	31 and above	78	31.3
Education	High School	78	31.3
	Licence	157	63.1
	Postgraduate	14	5.6
Years of Active Sport	1-5 Years	178	71.5
	6-10 Years	47	18.9
	11 Years and above	24	9.6
Total		249	100,0

In our research, the participants were determined voluntarily for data collection, and after the purpose of the study was conveyed to the individuals, the data were collected one by one by the participants using the interview method. The necessary approval was obtained from the Ethics Committee of Istanbul Esenyurt University for the ethical appropriateness of the research (2022/12-20). This research was conducted in line with the principles set out in the Declaration of Helsinki.

Research Design

Personal information form, open-ended questionnaire for qualitative data, Psychological Needs Status Scale in Sport and Sports Commitment Scale were used for quantitative data.

Open-ended Questionnaire: The questions "How do you feel when you do sports?" and "How do you feel when you do not do sports?" were asked to the research group. The data were collected individually in an interview format over a period of 2 months.

Psychological Needs Status Scale in Sport (SPIDO): The 7-point Likert-type scale developed by Bhavsar et al. (2020) and adapted into Turkish by Ünver et al. (2022) consists of 23 items and 6 sub-dimensions (Bhavsar et al., 2020; Ünver et al., 2022). The reliability coefficient of the scale was calculated as .80 by the researchers and as .

Sports Commitment Scale: The 7-point Likert-type scale developed by Guillen and Martinez-Alvarado (2014)

and adapted into Turkish by Kayhan, Bardakçı and Caz (2020) consists of 12 items and 3 sub-dimensions (Guillen and Martinez, 2014; Kayhan et al., 2020). The reliability coefficient of the scale was calculated as .92 by the researchers and as .92 in this study. In this section, thoroughly explain the research design you employed, including the experimental setup, data collection methods, and any control measures.

Statistical Analysis

In our research, content analysis was used to analyse qualitative data. In this type of analysis, efforts were made to make the research more understandable by coding and categorising in line with the views of the participants (Cresswell, 2007). The data obtained in this research were recorded in excel database and the opinions were analysed. As a result of the analyses, 19 participant opinions were not included in the analysis when the opinions left blank or appropriate to the subject were examined. In the analyses, the categories and codes were forwarded to 4 experts (2 psycho-social workers in sports sciences, 1 psychologist and 1 faculty of education) and the opinions that were not adequately represented were reinterpreted. The reliability of the content analysis was calculated in accordance with Miles and Huberman (1994) validity-reliability index and was found to be in the range of %86.

In analysing the quantitative data, scales filled in voluntarily by the participants were used (Miles and Huberman, 1994). SPSS 25 program was used for quantitative data analysis. Since the skewness and kurtosis ratios of the study were between ± 1.5 , parametric

measurements were utilised (Cresswell, 2007). Pearson Correlation and Regression analyses were used to compare the total values of the scales. The p value was calculated as .05 in the study.

Main methods applied to collect and treat the data. Notes on validation & curation techniques applied. Notes on data quality, noise, etc.

When reporting datasets that involved human subjects, human material, human tissues or human data, authors must declare that the investigations were carried out following the rules of the Declaration of Helsinki of 1975 (<http://www.wma.net/en/30publications/10policies/b3/>), revised in 2008. According to point 23 of this declaration, an approval from an ethics committee should have been obtained before undertaking the research. As a minimum, a statement including the project identification code, date of approval and name of the ethics committee or institutional review board should be cited in this section. Data relating to individual participants must be described in detail, but private information identifying participants need not be included unless the identifiable materials are of relevance to the dataset (for example, when publishing a dataset of photographs of participants' faces that show particular symptoms). A written informed consent for publication must be obtained from participating patients in this case.

Results

At this stage of the research, explanations about quantitative and qualitative data are given.

Table 2.

How the research group felt when they did not do sports

Category	Code	f	Research Group Descriptions
Negative Feelings (f=230)	Missing	50	If I miss only 1 (one) day, I feel remorse, but I try to remember that I also need rest. So I feel incomplete because I think I cannot fulfil my responsibilities (P124).
	Powerless	7	I feel weak because I cannot fulfil my responsibilities (P109).
	Bulky	13	I feel empty, like a lumbering being who cannot move his body, who cannot go from one place to another (P193).
	Restless	8	I feel empty and restless, unable to enjoy life (P67).
	Bad	41	The thought that I am doing wrong disturbs me all day long. I feel bad with the thought that I have wasted the investments I have made so far by disrupting my routine (P126).
	Mode Low	10	I feel disengaged from a certain task, depleted of energy and in a low mood (P47).
	Unhappy	48	I feel that time stops, sitting idle does not bring me anything and I feel unhappy as I remain inactive (P58).
	Angry	8	I feel aimless, tense and irritable by teasing left and right for no reason (P149).
	Offender	8	I feel like a criminal who has exhausted himself, interfered with his own quality of life and betrayed himself (P1).
	Tired	37	On days when I do not do sports, I feel more tired, low energy and exhausted (P101).

The research group's categories and codes for how they feel when they don't play sports are shown in Table 2. The codes of incomplete (f=50), sad (f=48), bad (f=41), exhausted (f=37), cumbersome (f=13), low mood (f=10),

furious (f=8), guilty (f=8), and powerless 8 (f=7) contain the single category of the research group, negative feelings (f=230).

Table 3.

How the research group feel themselves when they do sports

Category	Code	f	Research Group Descriptions
Positive Feelings (f=230)	Religion	26	I feel more vigorous and healthier than ever and I feel that I have done a good activity for myself (P44).
	Energetic	50	I feel very energetic as if I have won a prize, excited, time passes like water and I feel very energetic (P70).
	Powerful	20	I feel that I have done something useful for myself, I feel more determined in life and stronger than I am (P73).
	Peaceful	15	I feel fulfilled, complete, peaceful and as if I have received daily food (P139).
	Motive	14	I feel carefree, proud, relaxed and highly motivated (P228).
	Happy	71	Since I have a lot of free time, it feels good to spend a small part of it in sports, even if it is small, I am happy when I

		make progress and I feel happier on the day I do sports (P78).
Perfect	10	I feel excellent, super and excellent in every way (P116).
Self-confident	24	When I do sports, I feel more determined, more confident and more self-confident than ever (P156).

In Table 3, the categories and codes related to the perceptions of the research group about how they feel themselves when they do sports are presented. It is seen that the only category of positive feelings of the research group; happy ($f=71$), energetic ($f=50$), vigorous ($f=26$), self-confident ($f=24$), strong ($f=20$), peaceful ($f=15$), motivated ($f=14$) and excellent ($f=10$).

Table 4.
Pearson Correlation Test analysis of the relationship between SPIDO and sports commitment

		Commitment to Sport
SPIDO	r	.130*
	p	.041

In Table 4, as a result of the test conducted to reveal the relationship between the psychological needs in sport and sports commitment, a weak positive relationship is observed ($r=.130$, $p<.05$).

Table 5.
Linear regression analysis of commitment to sport and psychological needs in sport

	B	Sh	β	t	P
SPIDO	5.262	.424	.130	12.317	.041
	230	.112		2.057	

Table 5 shows that .017% of the psychological needs in sport of the research group is explained by commitment in sport ($R=.130$; $R^2=.017$; $F=4.233$; $p=.041$). As a result of the statistical information, it is seen that psychological needs in sport positively and significantly affect commitment in sport.

Discussion

Our study was conducted in order to explain what kind of changes the participants who have been doing sports at bodybuilding centres for at least 12 months, 3 days a week or more and what kind of changes they feel in themselves when they do or do not do sports and to reveal the relationship between the psychological needs in sports and their commitment to sports.

When the first data of our study are analysed, it is seen that when we look at what emotions the participants feel or what they feel when they do not do sports, it is seen that it consists of the category of negative feelings. Under this category, it was determined that they felt incomplete, weak, cumbersome, restless, bad, low mood, unhappy, angry, guilty and tired. In Tekkurşun-Demir's (2022) study, it was stated that when individuals could not participate in exercise, they felt negative, exhibited asocial behaviours, and behaved as if they exhibited behaviours that they did not exhibit in their daily lives (Tekkursun-Demir, 2022). It is known that physiological and mental negativity may occur when individuals do not train or do sports (Cook et al., 2015). In the absence of physical activity, depressive behaviours, loss of appetite and increased anxiety levels are

observed in individuals (Hausenblas and Downs, 2002). It has been concluded that in the absence of exercise, certain disorders occur in individuals, causing psychological damage to individuals and causing many unknown disorders (Szabo, 2018).

When the second data of our study is analysed, it is seen that when we look at what emotions the participants feel or what they feel when they do sports, it is seen that it consists of the category of positive feelings. Under this category, it was determined that they felt vigorous, energetic, strong, peaceful, motivated, happy, excellent and self-confident. It has been revealed that individuals are happy while doing physical activity and their sense of self-confidence increases thanks to the wearable technological products they use, so they are more motivated, their posture is smooth, and the increase and decrease in heart rate makes people energetic (Westerteep, 2009). It is known that individuals feel better psychologically and physically thanks to continuous training (Mayolas et al., 2017). When physical activity is performed, it has been observed that the level of anxiety decreases (Adams et al., 2003) and distracts individuals from depression (Ströhle, 2009). It has been determined that when individuals do sports, they try to do the best they can do, they are optimistic at all times, their self-discipline increases, they control themselves more easily, and it positively affects their mental and physical performance (Bicer, 2018).

In the last part of our study, when the quantitative data were analysed, it was seen that psychological needs in sport positively and significantly affect commitment in sport. In the light of these statistical data, it can be thought that as the psychological needs in sport increase, the level of commitment to sport may also increase. In another study, a negative relationship was found between exercise addiction and passion for sport (Vardar et al., 2012). When the research data are analysed, it is seen that individuals who do bodybuilding sports have more positive feelings when they do sports and negative feelings when they do not do sports. In this respect, it can be said that there is a linear relationship when quantitative and qualitative data are examined. In Tekkurşun-Demir's (2022) study, it was determined that exercising causes happiness in individuals and that there is a significant positive relationship between exercise and happiness (Tekkursun-Demir, 2022). In Yıldırım Yıldırım's (2016) study, it was determined that excessive exercise causes addiction and increases the risk of depression (Yıldırım and Yıldırım, 2016). It is seen that the eating patterns of individuals dependent on exercise and physical activity turn negative and exhibit psychopathological behaviours (Vardar et al., 2012). It has been determined that the psychological status of individuals in sports and the regular progression of their sports commitment needs have a positive correlation with the satisfaction of bodybuilding athletes with the service they

receive and the participation of fitness centres among users (Fernández-Martínez et al., 2021).

It is evaluated that exercise is used by individuals in some cases to escape from problems, and since it gives pleasure to individuals, they may allocate all their time to exercise in order to increase this pleasure even more. The study group stated that they felt pessimistic when they did not do sports and felt more secure when they did sports.

Conclusion

The study's findings showed that individuals who have been participating in sports at bodybuilding centers for three days a week or longer for at least a year are happier, more self-assured, feel like they add purpose to their lives, carve out a space for themselves, and spend quality time with each other; on the other hand, those who do not participate in sports report feeling hopeless, miserable, and like their days are meaningless. It follows that regular participation in sports has the potential to become addictive. In this sense, it is thought that research examining the psychological reasons underlying this result is needed. It can also be investigated whether this situation negatively increases the use of ergogenic aids in fitness centers. Our study was conducted only on individuals who attend fitness centers. A similar study can be conducted in different types of sports.

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Conflicts of Interest

All authors declare that they have no conflicts of interest.

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