

## Metaphoric Perceptions of Nutrition and Dietetics Department Students on Sports\*

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### ABSTRACT

**Aim:** This study aimed to determine the metaphorical perceptions of the Nutrition and Dietetics Department students about sports.

**Method:** A total of 132 volunteer students from Department of Nutrition and Dietetics of three different universities participated in the study (Artvin Çoruh, Avrasya, Gümüşhane). The data were obtained by completing the sentence "Sports is like ... because ..." and were analyzed with qualitative and quantitative research methods.

**Results:** 132 university students who participated in the study produced a total of 132 metaphors for the concept of "sport", and the most repeated metaphor was "life" (f=15). 16 different conceptual categories were created, and the categories with the highest number of metaphors were determined as the sport as an element of life (28 metaphors), a health-giving element (27 metaphors), feeling of peace and happiness providing element (13 metaphors), an element of determination (12 metaphors), an energizing element (11 metaphors).

**Conclusion:** When the results of the study were evaluated, it was determined that the students had positive perceptions towards sports in the metaphors they produced regarding the concept of "sport".

**Keywords:** Department of nutrition and dietetics, Sports, Metaphor

### ÖZET

#### Beslenme ve Diyetetik Bölümü Öğrencilerinin Spor Hakkındaki Metaforik Algısı

**Amaç:** Bu çalışmanın amacı Beslenme ve Diyetetik Bölümü öğrencilerinin spor hakkındaki metaforik algılarının belirlenmesidir.

**Yöntem:** Çalışmaya üç farklı üniversitenin (Artvin Çoruh, Avrasya, Gümüşhane) Beslenme ve Diyetetik bölümünden toplam 132 gönüllü öğrenci katılmıştır. Veriler öğrencilerin "Spor ... gibidir, çünkü ..." cümlesini tamamlamalarıyla elde edilmiş olup, nitel ve nicel araştırma yöntemleriyle analiz edilmiştir.

**Bulgular:** Çalışmaya katılan 132 üniversite öğrencisi "spor" kavramına ilişkin toplamda 132 metafor üretmiş olup en fazla tekrar edilen "hayat" (f=15) metaforu olmuştur. 16 farklı kavramsal kategori oluşturulmuş, en fazla metafor üretilen kategoriler ise sırasıyla; yaşamın bir unsuru (28 metafor), sağlık verici bir unsur (27 metafor), huzur-mutluluk-erinç verici bir unsur (13 metafor), kararlı olmaya ilişkin bir unsur (12 metafor), enerji verici bir unsur (11 metafor) olarak spor şeklinde belirlenmiştir.

**Sonuç:** Çalışmanın bulguları değerlendirildiğinde öğrencilerin "spor" kavramına ilişkin ürettikleri metaforlarda spora karşı olumlu algılarının olduğu tespit edilmiştir.

**Anahtar Kelimeler:** Beslenme ve diyetetik bölümü öğrencileri, Spor, Metaphor

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## INTRODUCTION

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Sports and nutrition cannot be considered separately from each other, they are two intertwined concepts that cover each other and the main aim of both is to provide development. From a definition point of view, nutrition is to take as many nutrients as the body needs for growth and development in a correct-balanced-regular way, on the other hand, Sports are defined as all of the activities performed for the aim of having fun and competing, which have certain techniques, tactics, and rules that develop the individual physically and spiritually (Arlı, 2017). As in the past, concepts such as sports, health, and nutrition are very important in the life of the individual and society today. Thanks to metaphors, we can establish a connection with these concepts in our minds without changing the meanings of these concepts (Kövecses, 2002). Over time, awareness of these concepts has increased, and the subject has reached the importance it deserves. In this context, the adequate level of knowledge and opinions of the Nutrition and Dietetics Department students about sports will make a great contribution to the correct understanding of its relationship with health and nutrition issues.

The concept of sport has a history as old as the beginning of humanity and is derived from the Latin words "dispotore and deportore", which means "to disperse, to separate". Sports, which have become indispensable in social life, are defined as activities that appeal to the body and soul at the same time, aim to develop the individual as a whole, make them healthy and happy, have certain rules, and contain competition (Yıldırım and Orphan, 1996). Sports have psychological, physiological, and sociological effects. From the shaping of the personality of the individual to the social development and changes, learning the rules, good, bad, and right and wrong, together with the contribution of sports to phenomena such as fair competition and discipline were psychological effects. Many benefits of doing regular sports have been observed in terms of health, and it is one of the physiological effects that it contributes to the functions of the muscle, bone, joint and cardiovascular system (İkizler and Özcan, 1994). Examples of sociological effects are the reduction of unrest, insecurity, and deviant behaviours along with conformity and conflict models in the social structure of the society and their enrichment with norms, reducing tensions, ensuring that especially the young population stays away from some harmful habits, and contributing to the efficiency and productivity of individuals. At the same time, sports are seen as a very important factor in the regulation of social life (Diana and Mears, 2004).

Metaphors reveal our effort to understand and make sense of the world and are derived from the Greek word "Metapherein". Meta means changing and pherein means carrying (Levine, 2005). Considering its usage in Turkish, it is used in the sense of simile, metaphor, figurative expression, and trope. In connection with sports, expressions such as "running like a wind", "shooting like an arrow", "dancing like a swan" and "going like a turtle" are examples of these uses. Lakoff and Johnson (2015: 27), who have done a lot of research on metaphors, "expressed metaphors as a way of thinking rather than being a word and stated that it is about how people perceive a thought. However, expressions are metaphors to express feelings and thoughts about a concept in its simplest form. Therefore, new concepts that are tried to be understood are tried to be defined in the mind by associating them with previously known concepts. Metaphors provide experience, knowledge and learning (Karagün, 2021) and they express more than the actual meaning of a concept. Metaphors, which are a tool, are used to express how we see ourselves, nature, life, the environment, others, and most importantly, objects, as well as to embody thoughts with abstract and ambiguous feelings in the mind (Kısa, 2013).

Sports and regular physical activity develop the individual socially, emotionally, physically, mentally and contribute to all of these areas holistically. Today, healthy nutrition and sports are the most important factors that increase the quality of life of the individual, protect him/her from diseases and provide weight control. For this reason, this study aimed to determine the perceptions of nutrition and dietetics department students towards sports through metaphors.

*In the study, answers to the following questions were sought;*

- 1) What kind of metaphors did the students of the Department of Nutrition and Dietetics produce regarding the concept of "sport"?
- 2) In how many different categories are the metaphors produced by the Nutrition and Dietetics Department students about the concept of "sport" divided into?
- 3) Do the conceptual categories differ according to the gender of the students, what grade they are in, and doing sport status?

## **METHOD**

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Qualitative and quantitative research methods were used in the study. In a study, the combination of qualitative and quantitative approaches by the researcher was defined as a mixed method (Creswell, 2003). The study was conducted with the participation of a total of

132 volunteer students from the nutrition and dietetics departments of three different universities (Artvin Çoruh, Avrasya, Gümüşhane) in the 2020-2021 academic year (Table 1).

**Table 1:** Distribution of students by gender, class, and sports status

Variables	Groups	<i>f</i>	%
<b>Gender</b>	Male	11	8,3
	Female	121	91,7
<b>Grade</b>	1.	29	22,0
	2.	10	7,6
	3.	57	43,2
	4.	36	27,3
<b>Doing Sport</b>	No (by hobby or license)	106	80,3
	Yes (hobby or licensed)	26	19,7
<b>Total</b>		132	100,0

According to Table 1, 91.7% of the students participating in the study were female, and 8.3% were male. Moreover, 22.0% of the students participating in the research were in the 1<sup>st</sup> grade, 7.6% in the 2<sup>nd</sup> grade, 43.2% in the 3<sup>rd</sup> grade and 27.3% in the 4<sup>th</sup> grade. Besides, 80.3% of 132 students stated that they did sports as a hobby or licensed, and 19.7% did not do sports.

**Data collection tool:**

The data were obtained by applying a form in which the expression "Sports is like ... because ..." to determine the perceptions of the students about the concept of "sports". After the form was arranged on google-form, the research was announced on social media and applied with remote participation.

**Ethical Approach:**

The study was unanimously decided by the members of the Artvin Coruh University Scientific Research and Publication Ethics Committee, stating that there was no ethical or scientific objection to the study, and it was found appropriate (Decision number: E-18457941-050.99-8742).

**Analysis of the Data:** In this study, the data were evaluated using the content analysis technique. At this stage, expert opinion was sought to confirm whether the metaphors represent the conceptual categories they belong to.

*Coding and Extraction Phase:* Metaphors were coded and extracted. All classes of the department were listed, numbered starting from 1.

*Classification (Election and Refinement) Stage:* The metaphors produced by the students about sports were examined and grouped, and the relationship between the subject and source of each metaphor was analyzed.

*Category Development Stage:* Metaphors were grouped into conceptual categories.

*Reliability:* In order to ensure reliability in the research, an alphabetical list of 132 metaphors and a list containing the features of 16 different conceptual categories were submitted to the expert opinion and it was requested that the metaphors be placed in conceptual categories so that no metaphors were left out. Then, the evaluation made by the expert and the researcher was compared and calculated using Miles and Huberman's (1994) formula (Reliability = consensus/consensus + disagreement). In qualitative studies, it is assumed that a desired level of reliability will be achieved when the agreement between expert and researcher evaluations is 90% or more. As a result of the calculations made in this study, it was found that there was a 94% agreement.

*Quantitative Data Analysis Phase:* The frequencies of the metaphors were extracted, and their percentages were found and grouped under conceptual categories; The students' gender, grades, and sports status were tabulated.

## RESULTS

### *Results Related to Conceptual Categories*

132 university students who participated in the study produced a total of 132 metaphors for the concept of "sport". The most produced metaphor was "life" (f=15) repeated by 15 students. The metaphors produced were collected in 16 different conceptual categories, and the titles were indicated in the table (see Table 2).

**Table 2:** Metaphor categories of students regarding the concept of sport

Categories	Number of students %	Metaphor	Number of Metaphors Generated %
Sport for health	27 (20,5)	Life (4), Peace And Happiness (1), Medicine (5), Finding yourself (1), Protective Shield (1), Breath (2), Healthy Living (1), Garlic (1), Water (4), Basic Needs (1), Therapy (2), Vitamin (1), Life (1), Lifestyle (2)	27 (20,5)
Sport for peace and happiness	13 (9,8)	Revitalization (1), chocolate (1), rest (1), medicine (1), rock (1), happiness (1), breath (2), relaxation (1), stress relief (1), therapy (1), flying bird (1), food (1)	13 (9,8)
Sport for necessity	8 (6,1)	Addiction (1), life (1), part of life (1), need (1), kefir (1), breath (1), food (1), necessity (1)	8 (6,1)
Sport to contribute	5 (3,8)	Medicine (1), reading books (2), health and stability (1), an invisible force of life (1)	5 (3,8)
Sport for movement	3 (2,3)	habit (1), rose (1), tire (1)	3 (2,3)
Sport for life struggle	4 (3,0)	Brain (2), life (1), first step (1)	4 (3,0)
Sport for energy	11 (8,3)	Love (1), fun (1), Energy (1), food (1), life (2), medicine (1), breath (1), sigh (1), lifetime (1), living (1)	11 (8,3)

Sport as an obstacle	1 (0,8)	Difficult (1)	1 (0,8)
Sport for that makes life enjoyable	4 (3,0)	life (1), breath (2), hope (1)	4 (3,0)
Sport for that needs attention	6 (4,5)	Child (2), study (1), philosophy (1), life (1), mansion (1)	6 (4,5)
Sport for unifying factor	1 (0,8)	Turkey (1)	1 (0,8)
Sport for measure and balance	2 (1,5)	Cold water (1), therapy (1)	2 (1,5)
Sport for that makes an individual talented	2 (1,5)	Medicine (1), health and stability (1)	2 (1,5)
Sport for expression of life	28 (21,2)	Love (1), food (1), nutrition (1), life (3), medicine (1), heart (2), sibling (1), breath (3), oxygen (2), health (3), water (6), basic need (1), life (1), food (2)	28 (21,2)
Sport for both negative and positive value	5 (3,8)	Habit (1), Love (2), diet (1), meaning of life, happiness, health (1)	5 (3,8)
Sport for determination	12 (9,1)	Habit (1), addiction (1), diet (2), education (1), life (2), rope (1), fruit (1), exam (1), water drop (1), sleep (1)	12 (9,1)

#### • *Sports as a Health-Giving Element*

According to this category produced by 27 students (20.5%), it was observed that sports influenced health, vitality, and vigor.

- ▶ Sport is like water because it heals the body.
- ▶ Sports is like medicine because it has many benefits for our body.
- ▶ Sports is like life because it keeps people calm.

#### • *Sports as a Peace-Happiness-Relaxing Element*

According to this category, produced by 13 students (9.8%), it was observed that sports have a restful, relaxing and well-being effect, contributing to feeling peaceful and happy.

- ▶ Sports is like breathing because as you do sports, peace and calm enter your comfortable life.
- ▶ Sports is like therapy because it is the best for the soul.
- ▶ Sports is like relaxation because it gives pleasure when you do it, it increases the quality of life.

#### • *Sport as a compulsory element*

According to this category produced by 8 students (6.1%), it was observed that doing sports was necessary and that sports were a necessary element.

- ▶ Sports is like a necessity because an empty life turns a person into a plant.
- ▶ Sports is like kefir because it is not liked, but it is useful.

• ***Sports as a Contributing Element***

According to this category, which was produced by 5 students (3.8%), it was observed that besides the positive aspects of sports on human life and individual development, it also had talent-developing features.

- ▶ Sports is like reading a book because people develop as they read, and development is healthy for every individual.
- ▶ Sports is like an invisible force of life because you can live without sports but living with sports turns you into a life hero wearing a cape.

• ***Sports as an Element of Movement***

According to this category, produced by 3 students (2.3%), it was observed that sports were an element of movement and motion.

- ▶ Sports is like a tire because you became flexible.

• ***Sports as an Element of Struggle for Life***

According to this category, produced by 4 students (3.0%), it was observed that sports were a struggle for life.

- ▶ Sports is like a brain because as you do, it develops the human body.
- ▶ Sports is like life because sometimes it is tiring and sometimes it increases your energy.

• ***Sport as an Energizing Element***

According to this category, produced by 11 students (8.3%), it was observed that sports were vital energy and a source of life.

- ▶ Sports is like life because we can feel the energy of life in sports.
- ▶ Sports is like energy because when I exercise, I feel energetic.

• ***Sport as a Constraints Element***

According to this category produced by 1 student (0.8%), it was observed that sports were a constraint.

- ▶ Sports is like a challenge because I'm lazy.

• ***Sports as an Element that Makes Life Enjoyable***

According to this category, produced by 4 students (3.0%), it was emphasized that sports coloured life, made life sweet and fun, and at the same time give pleasure to life.

► Sports is like life because it gives the enthusiasm to live.

• ***Sports as an Element that Needs Attention***

According to this category, produced by 6 students (4.5%), it was observed that sports were an element that required effort and attention, as well as an effort.

► Sports is like a child because it requires constant attention.

• ***Sport as a Unifying Factor***

According to this category, produced by 1 student (0.8%), the unifying and integrating effect of sports was emphasized.

► Sports is like Turkey because each branch gives different pleasure.

• ***Sport as a Measure and Balance Element***

According to this category produced by 2 students (1.5%), it was observed that sports should be done in moderation and that it had a balance element.

► Sport is like cold water because it keeps you fit.

• ***Sports as an Element that Makes an Individual Talented***

According to this category produced by 2 students (1.5%), it was observed that sports are an element that makes the individual talent.

► Sports is like medicine because when done regularly, it eliminates many problems.

• ***Sports as an Element of Expression of Life***

According to this category, produced by 28 students (21.2%), it was emphasized that sports were a form of expression of life.

► Sport is like water because it is essential for the body

► Sports is like breathing because we can't go on living without it.

► Sports is like oxygen because it is as important to our body as breathing.

• ***Sports as both a Negative and a Positive Value Element***

According to this category, which was produced by 5 students (3.8%), it was observed that sports were both a negative and a positive element of value and doing sports can be beneficial as well as harmful.



Sport for that makes an individual talented	n	-	2	-	-	2	-	2
	%	-	1,7	-	-	3,5	-	1,5
Sport for expression of life	n	3	25	8	2	7	11	28
	%	27,2	20,7	27,8	20,0	12,3	30,6	21,2
Sport for both negative and positive value	n	-	5	3	-	1	1	5
	%	-	4,1	10,3	-	1,8	2,8	3,8
Sport for determination	n	1	11	2	1	5	4	12
	%	9,1	9,1	6,9	10,0	8,8	11,1	9,1
<b>All Categories</b>	n	11	121	29	10	57	36	132
	%	100,0	100,0	100,0	100,0	100,0	100,0	100,0

In this study, in which students' metaphors about the concept of "sport" were determined, 121 (91.6%) of 132 metaphors were produced by female students and 11 (8.3%) by male students. The category in which the most metaphors were produced by female students was 26 (21.5%) "sports as a health-giving element" category. When the metaphors produced by the students in the study were analyzed according to the grade level, it was seen that 8 people (27.8%) of the 1<sup>st</sup> grade students produced the most metaphors in the category of "sports as an expression of life". It was seen that 2 (20.0%) 2<sup>nd</sup> grade students produced the most metaphors in the categories of "sport as a health-giving element, sports as an expression of life, and sports as an energizing element". It was seen that the category of "sports as a health-giving element" was produced the most by 15 (26.3%) 3<sup>rd</sup> grade students. It was seen that the category of "sports as an expression of life" category was the most produced by 11 (30.6%) 4<sup>th</sup> grade students.

**Table 4:** Results Regarding the Conceptual Categories and Doing Sports of Students in All Classes

All Grades	1. Sports as a health-giving element	2. Feeling of peace and happiness providing element	3. Sport as an expression of life	4. Sport as an element of determination	Other Categories	All Categories
Doing Sport (hobby or licensed)	21	11	25	6	43	106
Not Doing Sport (hobby or licensed)	6	2	3	6	9	26
<b>All Participants</b>	<b>27</b>	<b>13</b>	<b>28</b>	<b>12</b>	<b>52</b>	<b>132</b>

According to Table 4, 106 out of 132 students did sport as a hobby or licensed, and 26 of them did not. The metaphors they produced from these students were 21 out of 27 students in the 1<sup>st</sup> category, 11 out of 13 students in the 2<sup>nd</sup> category, 25 out of 28 in the 3<sup>rd</sup> category, and 6 out of 12 students in the 4<sup>th</sup> category while they were engaged in sports as a hobby or licensed. On the other hand, 6 people in the 1<sup>st</sup> category, 2 in the 2<sup>nd</sup> category, 3 in the 3<sup>rd</sup>

category, and 6 in the 4<sup>th</sup> category did not engage in sports. At the same time, while 43 of the 52 people whose metaphors were in other categories were engaged in sports; the other 9 people consisted of students who did not deal with sports. As a result, it was possible to say that the perceptions of the students who did sports towards the concept of "sport" were more positive.

## **DISCUSSION**

Metaphors were not only rhetoric, but also tools that involve mental processes in making sense of events, facts, objects, and concepts. When the results were examined; 132 university students who participated in the study produced a total of 132 metaphors for the concept of "sports" and the most repeated metaphor was "life" (f=15). 16 different conceptual categories were created, and the categories that produced the most metaphors were respectively determined as; sport as an element of life (28 metaphors), a health-giving element (27 metaphors), feeling of peace and happiness providing element (13 metaphors), an element of determination (12 metaphors), an energizing element (11 metaphors). When the metaphors were analyzed according to the grade levels of the students, it was seen that the category of "sports as an expression of life" category was mostly produced by 8 people (27.6%) of the 1<sup>st</sup> grade students. It was seen that 2 (20.0%) 2<sup>nd</sup> grade students produced the most metaphors in the categories of "sport as a health-giving element, sports as an expression of life, and sports as an energizing element". It was seen that the category of "sports as a health-giving element" was produced the most by 15 (26.3%) 3<sup>rd</sup> grade students. It was seen that the category of "sports as an expression of life" category was the most produced by 11 (30.6%) 4<sup>th</sup> grade students. Out of 132 university students, 106 people who did sports as a hobby or license, and 26 students who did not do sport. In parallel with our study, Sevinç and Ergenç (2017) conducted a study to determine the metaphorical perceptions of university students about sports, in which they stated 104 different metaphors in 18 categories in response to the sentence "Sports is like...; Because..." and these metaphors were respectively "feeling of peace and happiness providing element (50 metaphors), health-giving (39 metaphors), obligatory (38 metaphors), positive contributor (13 metaphors), attention and effort (13) metaphor was observed as "sports as an element". At the same time, according to the findings of this study, they observed that the students had a positive perception of the concept of "sports". Also, in the study conducted by Arpa (2014), it was determined that the metaphors produced by the students regarding the concept of "sport" were like the categories of health and peace-happiness-peace. In the study conducted by Koç et al. (2015) with 7<sup>th</sup> grade students, it was stated that the participants mostly (93.07%) produced positive

metaphors related to the concept of sports and 41.86% of these metaphors were gathered in the category of "sport is a means of healthy living". Kurtipek and Sönmezoğlu (2018) stated in their study that “Sports is like...; because...” and they identified 50 different metaphors. These metaphors were based on a basic need and consist of six categories (31.08%), psychological comfort (27.02%), increasing the quality of life (14.86%), passion (12.16%), being in the nature of the individual (8,10%) and in terms of providing the physical benefit (6.75%). Yetim and Kalfa (2019) applied a 4-item form on the concept of sports to students in their study and 306 metaphors produced in the first item: movement and health (34%), sportive terms or persons (26%), positive features, feelings, and experiences (26%), negative experiences and emotions (6%), and social environment (6%). 94 metaphors produced in the second item: relaxation (26%), life (21%), useful and educational (17%), indispensable (9%), with different effects depending on the situation (9%), health (8%), friend (5%), unnecessary and exhausting (2%) categories. One hundred and five metaphors were produced in the third item: positive emotions (91%), negative emotions (7%), volatility (1%) categories. In the fourth item, the students presented 17 different suggestions for better teaching of the course. Although it was observed that sports were generally perceived positively, it was concluded that there were also negative perceptions. Karakaya and Salici (2016) examined the metaphors produced regarding the concept of e-sports in their study with students and found that metaphors with positive perceptions were more common. It was shown that the most produced of these positive metaphorical perceptions was the metaphor of "happiness", and the reason for this was that sport was an activity that contributed not only to physical development but also to spiritual development (Karakaya and Salici, 2016).

## **CONCLUSION and RECOMMENDATION**

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When the result of the study was examined, it was observed that the students had positive perceptions towards sports in the metaphors they produced for the concept of "sport". It was suggested that metaphors can be used as a powerful research tool in revealing and interpreting students' perceptions of the concept of "sports", using metaphors to develop scales for the concept of sport, sports education, and to reveal individuals' perceptions of the concept of sport in a more comprehensive way by using different universes and samples.

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