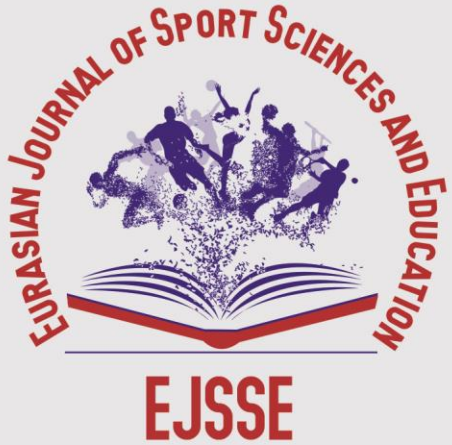


EURASIAN JOURNAL OF SPORT SCIENCES AND EDUCATION

Volume: 1, Issue: 1, 2019

Eurasian Journal of Sport Sciences and Education

Message from the Editor-in-Chief

Eurasian Journal of Sport Scienes and Education (EJSSE) (ISSN 2075-4663) is a peer-reviewed scientific journal that publishes original articles, critical reviews, research notes and short communications in the interdisciplinary area of Sport Sciences and Education.

Eurasian Journal of Sport Sciences and Education is published biannually (June-December)
http://dergipark.org.tr/ejsse

Publishing Board

EJSSE

Eurasian Journal of Sport Sciences and Education
Vol. 1, Issue 1, June, 2019
E-ISSN: 0000-0000
Published by Kadir YILDIZ
URL: http://www.dergipark.org.tr/ejsse

EDITORIAL BOARD MEMBERS

EJSSE

Eurasian Journal of Sport Sciences and Education
Vol. 1, Issue 1, June, 2019
E-ISSN: 0000-0000
Published by Kadir YILDIZ
URL: http://www.dergipark.org.tr/ejsse

Reviewer Acknowledgements

Eurasian Journal of Sport Sciences and Education (EJSSE) would like to acknowledge the following reviewers for their assistance with peer review of manuscripts for this issue. Many authors, regardless of whether EJSSE publishes their work, appreciate the helpful feedback provided by the reviewers. Their comments and suggestions were of great help to the authors in improving the quality of their papers.

Each of the reviewers listed below returned at least one review for this issue:

Dr. Bahar ATEŞ	Uşak University, Turkey
Dr. Dana BADAU	University of Medicine and Pharmacy of Tirgu Mures, ROMANIA
Dr. Derya Yüksel KOÇAK	Hitit University, Turkey
Dr. M. Ertan TABUK	Hitit University, Turkey
Dr. Mehmet ASMA	Manisa Celal Bayar University, Turkey
Dr. Yasemin ŞANLI	Karamanoğlu Mehmet Bey University, Turkey

EJSSE

Eurasian Journal of Sport Sciences and Education
Vol. 1, Issue 1, June, 2019
E-ISSN: 0000-0000
Published by Kadir YILDIZ
URL: http://www.dergipark.org.tr/ejsse

CONTENTS

VOLUME 1, ISSUE 1, JUNE 2019

EJSSE

Eurasian Journal of Sport Sciences and Education
Vol. 1, Issue 1, June, 2019
E-ISSN: 0000-0000
Published by Kadir YILDIZ
URL: http://www.dergipark.gov.tr/ejsse

Differences Between Motor Abilities of First and Second League Soccer Players in Kosovo

Agron THAQI[*1], Bylbyl SOKOLI[1]

[1]University of Prishtina, Faculty of Physical Education And Sport –Kosovo.

Original Article

Received: October 04, 2018 Accepted: March, 01, 2019 Online Publishing: June, 30, 2019

Abstract

In this research is applied a sample of 159 soccer players from Kosovo, 79 of them from the first league and 80 others from the second league, aged 18-33 years old. The aim of this research is the evaluation of motoric skills of the soccer players from the fist and the second league, and the comparison between them. To prove motoric abilities, 9 variables are applied: Standing long jump, Standing high jump, Standing triple jump, foot-tapping against the wall, 20m run, 50m run, ball lead slalom 20m, work with the ball, ball lead 20m in corridors. In this research are applied these methods of result elaboration: basic statistical parameters and the correlation between motoric space variables. In order to prove statistically valid changes between researched groups is applied T-test. The most noticeable difference is shown in the variable work with the ball 27 -15, whereas a small change between two groups of soccer players is noticed to the Standing high jump. The effect of more qualitative trainings is noticed in favor of the first league soccer players. After basic statistic parameters analyzed in motor space is concluded that exist systematic differences in favor of the first league soccer players. Based on the value of gained skills is formed the Kosovo soccer players model.

Keywords: Soccer, first and second league, motoric abilities.

INTRODUCTION

Muscle strength, power, and speed are important physiological characteristics of soccer players in order to perform sprinting, jumping, tackling, and kicking in a soccer game (Reilly, Bangsbo, & Franks, 2000). In particular, muscle strength of the lower limbs is significantly associated with vertical jump height and sprinting performance (Wisloff, Castagna, Helgerud, et al., 2004).

[*] University of Prishtina, Faculty of physical education and sport -Kosovo, athaqi@hotmail.com, +38344621607.

The physical requirements differ among non-elite and elite soccer players and also depends on what position the player have on the field. Endurance might be the first thing to consider important when describing the physical profile of the sport but strength and power is not to be overlooked. Stølen et al., (2005) states the three qualities as of equal value. Being physically fit is well related to greater performance in soccer. It also helps the players to cope with a heavy training and game load, benefits recovery and prevent injuries (Hoshikawa et al., 2009). Endurance, strength and power is gained from soccer practice and game play but it is possible to enhance sport specific performance by adding extra strength and conditioning training (Suchomel, Nimphius, & Michael, 2016). Strength training as an example improves sprinting and jumping and quick change of direction ability (Suchomel, Nimphius, & Michael, 2016). In soccer the lower extremities are the most used muscles which means that great strength is essential to perform the required skills and movements repeatedly without getting injured (Lehance, Binet, Bury, & Croisier, 2009). This is mainly done during the preseason when preparing the players for upcoming series and cups but is still performed during in season to maintain fit.

During a soccer game, short-lasting exercises performed with maximal intensity (sprinting, jumping, sliding) and high inten-sity (counter-attacking) involving primarily anaerobic energy metabolic processes are intertwined with exercises of moderate intensity (accelerations) and low intensity (walking, jogging) involving mainly aerobic energy processes. Maximal-intensity exercise in soccer is interrupted with rest breaks lasting from a few to more than 10 seconds (Spencer, Bishop, Dawson, & Goodman, 2005).

Low-intensity exercise and rest breaks during match play are necessary for muscle re-laxation, body recovery, and lactate utilisation, as well as for paying the oxygen debt which develops during the performance of high- and maximal-intensity exercise. The high level of physi-cal fitness and training accelerates all the aforementioned reac-tions and physiological-biochemical processes. The aim of this research is the evaluation of motoric skills of the footballers from the fist and the second league from Kosovo, and the comparison between them.

METHOD

In this research is applied a sample of 159 soccer players from Kosovo, 79 of them from the first league and 80 others from the second league, aged 18-33 years old. To prove motoric abilities, 9 variables are applied: Standing long jump (SLJ), Standing high jump (SHJ), Standing triple jump

(STJ), foot-tapping against the wall (FTAW), 20m run, 50m run, ball lead slalom 20m (BLS20m), work with the ball (WWB), ball lead 20m in corridors (BLC20m). The measurements were carried out in the field of the respective clubs, in the morning hours.

In this research are applied these methods of result elaboration: basic statistical parameters: arithmetical average (X), minimal result (min), maximal result (max), and standard deviation (ds) and the correlation between motoric space variables. In order to prove statistically valid differences between researched groups is applied T-test and canonical discriminative analysis.

FINDINGS

Table 1. Basic statistical indicators of motor skills - First league

	N	Min	Max	Mean	Std.. Dev.
SLJ	79	205	273	238	14.8
SHJ	79	22	69	51.8	6.8
STJ	79	585	792	697.5	47.4
20MRUN	79	278	350	310.8	14.8
BLS20m	79	837	1134	961.6	73.9
BLC20m	79	300	394	334.8	18.9
WWB	79	2	100	27.2	23.6
FTAW	79	953	2034	1379.9	202.3
50MRUN	79	622	763	684.9	30

Standing long jump (SLJ), Standing high jump (SHJ), Standing triple jump (STJ), foot-tapping against the wall (FTAW), 20m run, 50m run, ball lead slalom 20m (BLS20m), work with the ball (WWB), ball lead 20m in corridors (BLC20m)

Table 2. Basic statistical indicators of motor skills - Second league

	N	Minimum	Maximum	Mean	Std.. Deviation
SLJ	80	185	270	229.4	17
SHJ	80	38	65	51.4	5
STJ	80	565	800	670.5	51
20MRUN	80	284	346	311	25
BLS20m	80	887	1556	1048.2	100
BLC20m	80	306	420	351.1	25.2
WWB	80	3	52	15.4	11.5
FTAW	80	1020	1846	1398.8	166.5
50MRUN	80	631	787	693	31.1

Standing long jump (SLJ), Standing high jump (SHJ), Standing triple jump (STJ), foot-tapping against the wall (FTAW), 20m run, 50m run, ball lead slalom 20m (BLS20m), work with the ball (WWB), ball lead 20m in corridors (BLC20m)

In table 1 and 2 are shown basic statistical results, arithmetical average (X), minimal result (min), maximal result (max), and standard deviation (ds). In these tables is noticed the effect of more qualitative trainings in favor of the first league soccer players. The most noticeable difference is shown in the variable work with the ball 27 -15, whereas a small change between two groups of soccer players is noticed to the Standing high jump.

Table 3. T-test for motoric variables

	NIVEL 1.2	N	Mean	St. Dev	St. Er M	T	Sig.
SLJ	First league	79	238	14.8	1.6	3.3	**.001**
	Second league	80	229.4	17	1.9	3.3	**.001**
SHJ	First league	79	51.8	6.8	.773	.421	.674
	Second league	80	51.4	5.3	.596	.421	.675
STJ	First league	79	697.5	47.4	5.3	3.4	**.001**
	Second league	80	670.5	51.3	5.7	3.4	**.001**
20MRUN	First league	79	310.8	14.8	1.6	-.083	.934
	Second league	80	311	11.9	1.3	-.082	.934
BLS20m	First league	79	961.6	73.9	8.3	-6.1	**.000**
	Second league	80	1048.2	100.7	11.2	-6.1	**.000**
BLC20m	First league	79	334.8	18.9	2.1	-4.5	**.000**
	Second league	80	351.1	25.2	2.8	-4.6	**.000**
WWB	First league	79	27.2	23.6	2.6	3.9	**.000**
	Second league	80	15.4	11.5	1.2	3.9	**.000**
FTAW	First league	79	1379.9	202.3	22.7	-.644	.521
	Second league	80	1398.8	166.2	18.5	-.643	.521
50MRUN	First league	79	684.9	30	3.3	-1.6	**.098**
	Second league	80	693	31.1	3.4	-1.6	**.098**

In table 3, as we can see in T-test chart, are presented significant differences between the first and the second league soccer players. In motoric test Standing long jump (SLJ) are shown significant statistical differences between the first and the second league soccer players with rate.001. Standing triple jump (STJ) test shows significant statistical differences between the first and the second league soccer players with rate .001, whereas in situational motoric tests ball lead slalom 20 m (BLS20m), Ball lead 20m in corridors (BLC20m) and work with the ball (WWB) are shown significant statistical differences between the first and the second league soccer players with rate .000, whereas 50m running test shows lower statistical differences between the first and the second league soccer players with rate .098. Other tests don't have any significant statistical differences between the first and the second league soccer players.

Discriminative Canonic Analysis Between Groups of First and Second League Soccer Players in Motoric Variables

Table 4. Discriminativ Canonical function

Function	Eigenvalue	Canonical Correlation	Wilks' Lambda	Chi-square	df	Sig.
1	.619	.618	.618	73.4	9	**.000**

Table 4 - contents these data:
The number of discriminative functions (Fcn),
Characteristic equation root (λ),
Canonical correlation coefficient (Rc),
Willks'λ – that defines the criterion for discriminative power of applied variables,
Bartlet X^2 test – which tests statistical importance of discriminative equation,
Freedom degree (df),
The level of importance of discriminative function.

In table 4 – A discriminative function is isolated with characteristic root of discriminative equation λ=.619. The coefficient of canonical correlation has value Rc=.618. The criterion for discriminative force of applied variable has value Willks'λ=.618. With Bartlet X^2test is made importance statistical test of discriminative equation where are gained values X^2=73.446, for Df=9 freedom degree. The level of statistical importance of discriminative function is high Sig=.000. This level of statistical importance of discriminative function (Sig=.00<.01) shows that two groups of footballers have statistical important differences in measured variables.

Table 5. Discriminative function

	Function
BLS20m	-.626
BLC20m	-.466
FTAW	.406
STJ	.349
SLJ	.342
50M.RUN	-.169
WWB	-.065
SHJ	.043
20M.RUN	-.008

Standing long jump (SLJ), Standing high jump (SHJ), Standing triple jump (STJ), foot-tapping against the wall (FTAW), 20m run, 50m run, ball lead slalom 20m (BLS20m), work with the ball (WWB), ball lead 20m in corridors (BLC20m(.

In Table 5, important correlation with discriminative function have given situational variables: work with the ball (WWB), Ball lead slalom 20m (BLS20m), and ball lead 20m in corridors (BLC20m), and variables: Standing long jump (SLJ), Standing triple jump(STJ). Based on variables' corelations with discriminative functions, this function can be interpreted as compleks dimension of skills of ball manipulation and explosive strength

Table 6. Centroid groups in relation with discriminative function

	Function
First league	.787
Second league	-.777

Table 6. The best dicrimination of groups is made by centroids of groups, which have shown arithmetical averages of discriminative variables in discriminative function. The position of group centroid in discriminative function seperates it in two parts: in one part are entities that have lower value of centroids – The First League soccer players (centr.=-.787), whereas in the other part are entities that have higher value of centroids – The Second League soccer players (centr.=-.777).

Based on discriminative functional structure and based on centroids value, can be concluded: Soccer players of the first league have lower numerical value in ball manipulation abilities, compared with the second league soccer players, but in reality they are higher because lower numerical value shows better results. Also first league soccer players have shown better results in explosive strength test.

DISCUSSION

The aim of this research is the evaluation of motoric skills of the soccer players from the first and the second league from Kosovo, and the comparison between them. As commonly known, speed ability is a hereditary trait, but it can be improved by conscious training (Sevim, 2006). The skill to show fast reactions to unexpected developments in soccer is directly related to speed performance, since speed in soccer is more complicated than covering the distance between two points in the shortest time possible. Players can use speed to pass or block opponents, to gain possession of the ball or to protect the ball (Eniseler, 2010). Therefore, the other sports that also attribute importance to speed performance and contribute to its development as well in fact help the development of speed performance in soccer because there is a need for speed at certain rates in all sports (Dündar, 2015). Previous studies proved that certain sports branches in addition to soccer (e.g. basketball, swimming) contribute to speed development as well (Atan et al., 2016; Bavlı, 2012; Saygın, 2001; Yılmaz, 2012; Yılmaz et al., 2004). Akçakaya's (2009) study of 45 male athletes aged 19 and 20 who were interested in soccer, basketball and track and field reported

that athletes' speed skills had similar characteristics. Similarly, Duyul's (2005) study of 46 male athletes interested in soccer, handball and volleyball reported that there were no statistically significant differences in the 10 meter speed performances between the soccer players and volleyball and handball players; there was also no significant difference in the 20 m speed performances between soccer and handball players ($p>0.05$).

After basic statistic parameters analyzed in motor space, is concluded that exist systematic differences in favor of the first league soccer players. In the group of 159 first and second league soccer players from Kosovo, can be notice that the most motoric variables have given important statistical correlation. The highest correlation is noticed to these variables: Standing long jump (SLJ), Standing high jump (SHJ), Standing triple jump (STJ), and 50m run (.45-.78). This is justified with the fact that most of these variables are indicators of explosive strength. Work with the ball (WWB) is excluded because it has shown important correlation only with variable Ball slalom master between barriers and Lead the ball in 20 meter distance. At the variable ball master is noticed the ability of soccer players to keep the ball longer in the air. The best dicrimination of groups is made by centroids of groups, which have shown arithmetical averages of discriminative variables in discriminative function. The position of group centroids in discriminative function, seperates it in two parts: in one part are entities that have lower value of centroids – The First League soccer players (centr.=-.787), whereas in the other part are entities that have higher value of centroids –The Second League soccer players (centr.=-.777).

CONCLUSION

Based on discriminative function structure and based on centroid's value, can be concluded: Soccer players of the first league have lower numerical value in ball manipulation abilities, but in reality they are higher because lower numerical value shows better results than the second league soccer players. Also first league soccer players have shown better results in explosive strength test.

REFERENCES

Akçakaya, İ. (2009). *Compare anthropometric and motoric features of some players are in the trakya university athletics, basketball and football teams* (Unpublished master's thesis). Trakya University, Edirne, Turkey.

Atan, T., Ayyıldız, T., & Ayyıldız, P. A. (2012). Some physical fitness values of female athletes engaged in different team sport branches. *Selçuk University Journal of Physical Education and Sport Science, 14*(2), 277-282.

Atan, T., Eliöz, M., Çebi, M., Ünver, Ş., & Atan, A. (2016). Investigation of the effect of basketball training on motoric skills of the educable mentally retarded children. *Journal of Sports and Performance Researches, 7*(1), 29-35.

Duyul, M. (2005). *Comparation of effects to succes of motor values and antropometrik characteristics of handball, volleyball and football player university teams* (Unpublished master's thesis). Ondokuz Mayıs University, Samsun, Turkey.

Dündar, U. (2015). *Antrenman teorisi (9th ed.).* Ankara: Nobel Akademik Publishing.

Eniseler, N. (2010). *Bilimin ışığında futbol antrenmanı (1st ed.).* Manisa: Birleşik Printing.

Hoshikawa, Y., Iida, T., Muramatsu, M., Nakajima, Y., Fukunaga, T., & Kanehisa, H. (2009). Differences in thigh muscularity and dynamic torque between junior and senior soccer players. *Journal of sports sciences*, *27*(2), 129-138.

Lehance, C., Binet, J., Bury, T., & Croisier, J. L. (2009). Muscular strength, functional performances and injury risk in professional and junior elite soccer players. *Scandinavian Journal of Medicine & Science in Sports*, *19*(2), 243-251.

Reilly, T., Bangsbo, J., & Franks, A. (2000). Anthropometric and physiological predispositions for elite soccer. *Journal of sports sciences*, *18*(9), 669-683.

Saygın, Ö. (2001). The effects of training programme in preparation period on some physicll and physiological parameters of professional soccer players. *Journal of Physical Education and Sport Sciences, 1*(3), 102-107.

Sevim, Y. (2006). *Basketbol teknik taktik antrenman (6th ed.).* Ankara: Nobel Press.

Spencer, M., Bishop, D., Dawson, B., & Goodman, C. (2005). Physiological and metabolic responses of repeated-sprint activities. *Sports Medicine, 35*(12),1025-1044.7. https://doi.org/10.2165/00007256-200535120-00003.

Stølen, T., Chamari, K., Castagna, C., & Wisløff, U. (2005). Physiology of soccer. *Sports medicine, 35*(6), 501-536.

Suchomel, T. J., Nimphius, S., & Michael, S. H. (2016). The Importance of muscular strength in athletic performance. *Sports Medicine, 46(*10),1419-49. https://doi.org/10.1007/s40279-016-0486-0.

Wisloff, U., Castagna, C., Helgerud, J., Jones, R., Hoff, J. (2004). Strong correlation ofmaximal squat strength with sprint performance and vertical jump height in elitesoccer players. British Journal of Sports Medicine 38: 285–288. http://dx.doi.org/10.1136/bjsm.2002.002071.

Yılmaz, I., Yanardag, M., Birkan, B., & Bumin, G. (2004). Effects of swimming training on physical fitness and water orientation in autism. *Pediatrics International, 46*(5), 624-626. https://doi.org/10.1111/j.1442-200x.2004.01938.x.

Yılmaz, T. (2012). *The effect of 8-week swimming exercises on adolescents aerobic powers, respiratory function and body balance* (unpublished doctoral dissertation). Selçuk University, Konya, Turkey.

EJSSE

Eurasian Journal of Sport Sciences and Education
Vol. 1, Issue 1, June, 2019
E-ISSN: 0000-0000
Published by Kadir YILDIZ
URL: http://www.dergipark.gov.tr/ejsse

Communication Development in Children With Special Educational Needs Through Game at Physical Education Lessons

Nina CEBOTARU[1*], Serghei RACU[1]

[1]The State University of Physical Education and Sport, Faculty of Physical Therapy, Republic of Moldova

Original Article

Received: May, 05, 2019 Accepted: June, 26, 2019 Online Publishing: June, 30, 2019

Abstract

In various researches, emphasis is placed on the particular importance of the common game activity in the peer group for children's learning of verbal means of communication: The expressions, which are part of the dynamic game, signify the transition from the situative forms of communication to the non-situative ones. Complicating the content of verbal contacts is done by broadening the theme of children's expressions, related to the updating of cognitive representations, personal preferences and subjective appreciations of communicators. When the game is used in the educational process, it acquires significant psycho-pedagogical functions, ensures active participation of the pupil at the lesson, increases his / her interest for knowledge and the content of the lessons, offers the organized framework for practicing the communication. In modern society, known as the society of information and communication, it is surprising that we continue to limit the capacity of communication to certain parts of the population such as students with special educational needs. For them, communication restraints mean an obstacle to the development of their educational capacities (Fernandez, 2016). The purpose of this study derives from the complexity of activities involving interaction during Physical Education lessons. The study focuses on identifying direct or indirect forms of communication in Physical Education lessons, as well as how they are used and how they are reflected in specific moments of the lesson structure.
The main research methods include the bibliographic study, the observation method and some evaluation tests, which form the basis for the necessary documentation and understanding of the communication process in association with the physical education (game) activities.

Keywords: Dynamic games, physical education lessons, development, communication.

[*]**Corresponding Author:** Nina CEBOTARU, ninutza.cebotaru@gmail.com, +373 68121490.The State University of Physical Education and Sport, Faculty of Physical Therapy, Chisinau, Rebuplic of Moldova.

INTRODUCTION

The game, as a domain of cognitive-developmental activity, cannot be strictly delimited or defined univocally. Being a predominant activity kind of activity for pre-school children, the game does not lose importance even in the case of primary school aged children. Moreover, in the case of children with intellectual disabilities, the game remains the dominant occupation in the first stage of schooling, which is meant to lay the foundation for the subsequent training/education procedures. Without a well-structured ludic activity, the effort of asserting the child in school activity cannot be successful, and later - the training of communication skills in society (Scarlat & Scarlat, 2006).

Let's give a more detailed analysis of the game activity and the game itself through the multi-perspective of the given genre of occupation. Children, depending on their age, resort to various types of games. Early ages are dominated by the manipulative or engaging games, and at pre-school age, priority is given to role-plays. Also, an important place is reserved for dynamic games, for those with built-in sports / competitive games. At the same time with the advancing in age of children, their games become more complicated, and they become richer in content. Thus, by reaching the early school age, the child normally needs to know and actively use all types of play (Dragnea, 2002).

In the process of communication skills training, the game becomes very current, because during the game, the child learns about the variety of behaviour patterns offered by it, extrapolating them on their own behavioural and communication experience with the surrounding world, adults and peers. The games reflect practically all possible models of interrelation between the child and the social environment, forming lifelong skills for life (Popovici, 2000).

It is important to emphasize that the game reflects not only the external aspects of human existence but also the inner feelings, which can be both positive and negative, covering a wide spectrum of feelings - from attention, care, psychological and emotional comfort to hostility, repulsion, and brutal rejection.

For the development of communication skills, the play itself is important, except the end or denouement of the game. In fact, the game is not temporarily restricted. Children put a point on

the game when they want, without being forced to resume it next time since the previous abandonment.

The game, along with learning, communication and work, forms the basis for personality development. Each of these factors becomes primordial and dominant at a certain stage of life. If this is not the case, training problems and assimilation of new life habits occur in later stages (Serbanoiu, 2004). Thus, for children with normal developmental pathways, the play activity is dominant during the whole childhood period and only from the small school age it is gradually substituted by the learning activity. In the case of children with SEN (mental retardation) which refers to the general underdevelopment of superior psychiatric functions and, as a result the retardation in general development, the activity of gaming remains dominant and at the primary school age.

The purpose of this study derives from the complexity of activities involving interaction during Physical Education lessons. We can distinguish between various complex and specific aspects of the communication process, taking into account the specificity of each part of the physical education lesson, the way of organizing and carrying out this activity. In this context, the study focuses on identifying direct or indirect forms of communication in Physical Education lessons, as well as how they are used and how they are reflected in specific moments of the lesson structure. Through this personal interpretation, I have attempted to present a true picture of the communication process in Physical Education lessons, especially in activities that include dynamic play.

METHOD

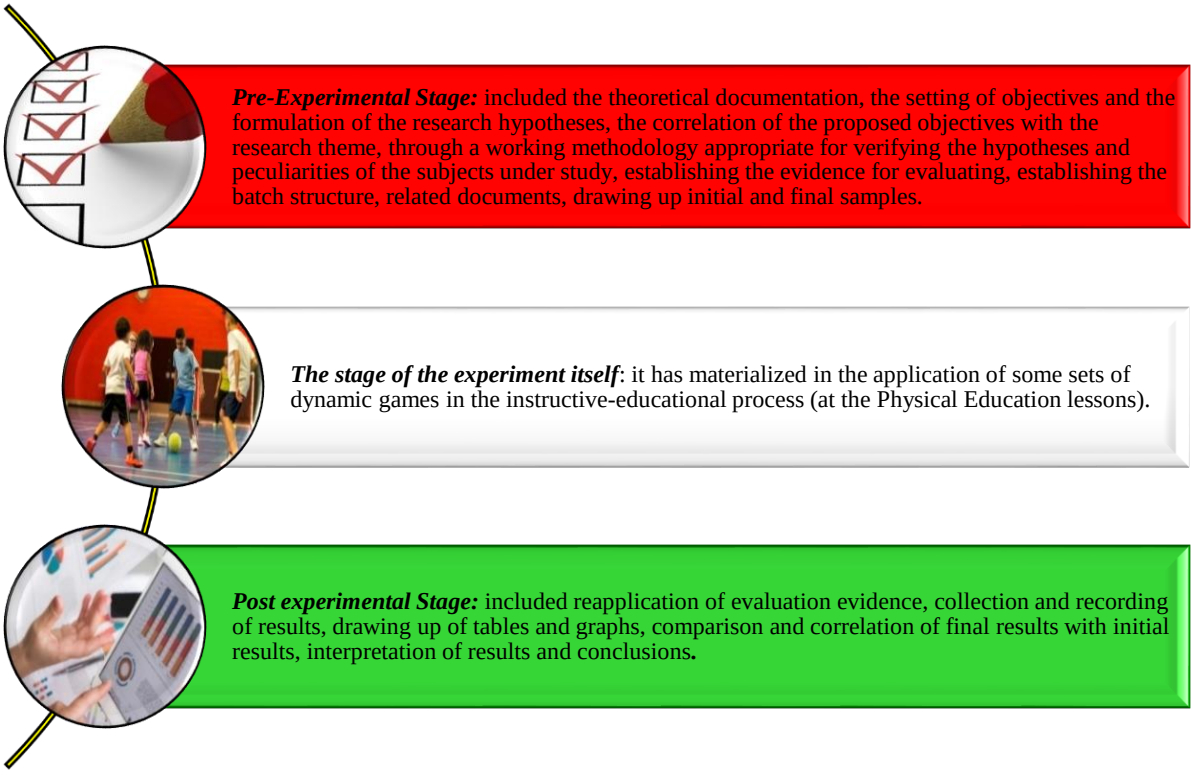
The main research methods include the bibliographic study, the observation method and some evaluation tests, which form the basis for the necessary documentation and understanding of the communication process in association with the physical education (game) activities.

It is assumed that through a set of dynamic games specially tailored for the investigated subjects, it is possible to delimit the acquisitions and deficiencies in the field of communication development in students with special educational needs (mental retardation).It is assumed that the

development and application of an adequate set of dynamic games within the physical education lessons of pupils with special educational needs (mental retardation) will increase the vocabulary and verbal communication performance in this category of subjects.

This study, based on a specific case study of a pupil population segment with special educational needs (mental retardation), aims to determine the influence of dynamic play as part of the Physical Education lesson in developing communication skills at pupils with special educational needs, identifying progress in developing conduct in the sphere of communication.

The research (understanding-ameliorative type) was held over two months, from January to March 2019 and included the following steps:



In order to achieve the goal of our research, we have started from associating mental deficiency with other deficiencies, as these particularities have a direct impact on student participation in Physical Education lessons and the communication process with classmates.

FINDINGS

Further, according to the results obtained at the evaluation grids, we have the graphic representation through several diagrams: Chart with distribution on deficiencies associated with mental deficiency.

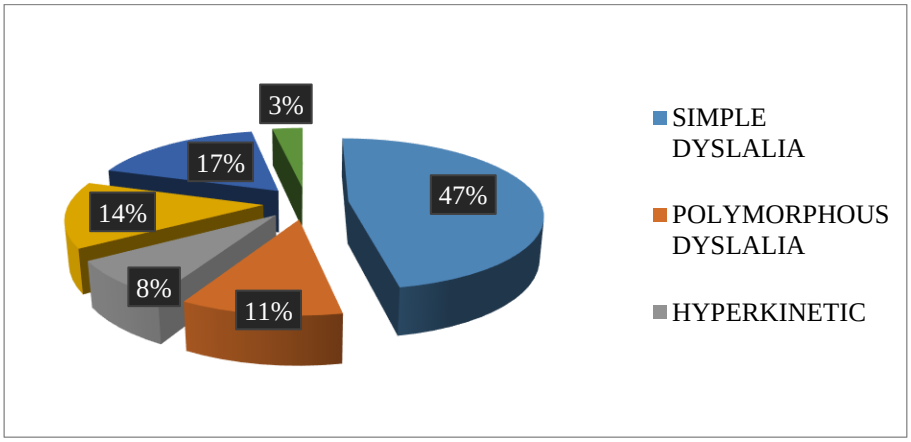


Figure. 1 Chart with distribution on deficiencies associated with mental deficiency

The game activity has a positive impact on the welding of the children's group, the personal training of the skills of autonomy, socialization, appreciation of their own effort and the effort of the others (Cristea, 2008). Taking into account the particularities of the play activity mentioned above, it will be started the development and correction of the communication skills planning. The recreational-developmental game, based on play and unfolded directly in the game, can be achieved without age, social or physical restrictions, hence its importance for affirming the personality of the child. According to their form, the games are divided into collective and individual. Practically, these forms alternate and complement each other, since each has its own impact on the development of communication skills (Popovici, 2000).

In the case of primary-school pupils with intellectual disabilities, the play activity requires a separate approach, as it is distinguished by some relevant peculiarities. We will mention that mental retardation is a persistent disorder of the person in the cognitive sphere, which arises as a result of organic diseases in the cerebral cortex. As a result, there is a slowdown in the pace of evolution of all mental functions (Racu & Racu, 2013).

For mentally retarded children, play is characterized by the lack of concrete objectives, well-defined content, complex subject lines that reflect real life. During the pre-school age, the playful actions of children with intellectual disabilities are often monotonous, content-free, stereotyped. It

is not clear the end goal of the activity, and the constitutive elements and movements performed by the children are mechanical. Sometimes children associate in groups of 2 or 3, but not for long because they take each other toys, causing conflicts. After the child with intellect deficiency is enrolled in school, gambling continues to keep on top of its concerns. As a certain life experience has accumulated, the child can already perform some objective practical actions.

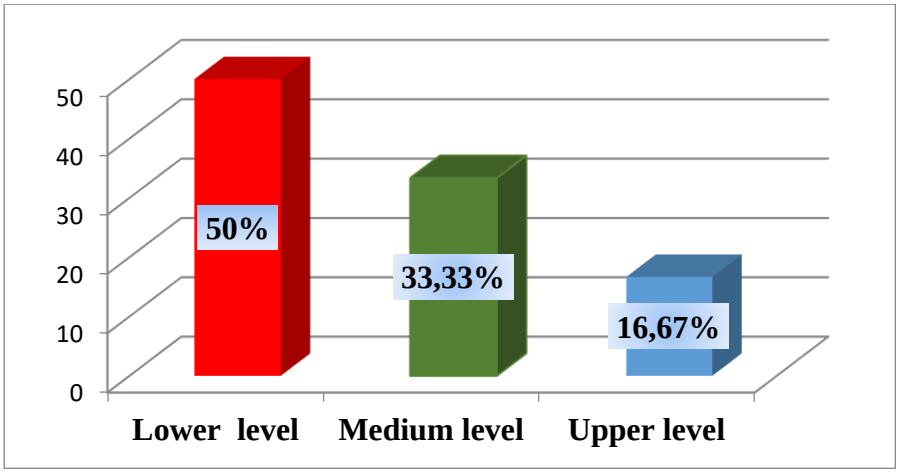


Figure 2. Chart with the distribution of results for the evaluation grid - field: Communication and Language (adapted) - initial testing

During the game, children learn to communicate with each other, to give up, when required by the concrete situation, to their own wishes to respect the interests of the game partners. Also, the game contributes to the correction of deviant behaviours and this because it requires the observance of certain rules, instructions, interrelation rules. As a result, the child learns to communicate differently with peers and adults, establish relationships with the next person, the group he / she is involved with, the extended team, and ultimately the social environment as a whole (Dragnea, 2002).

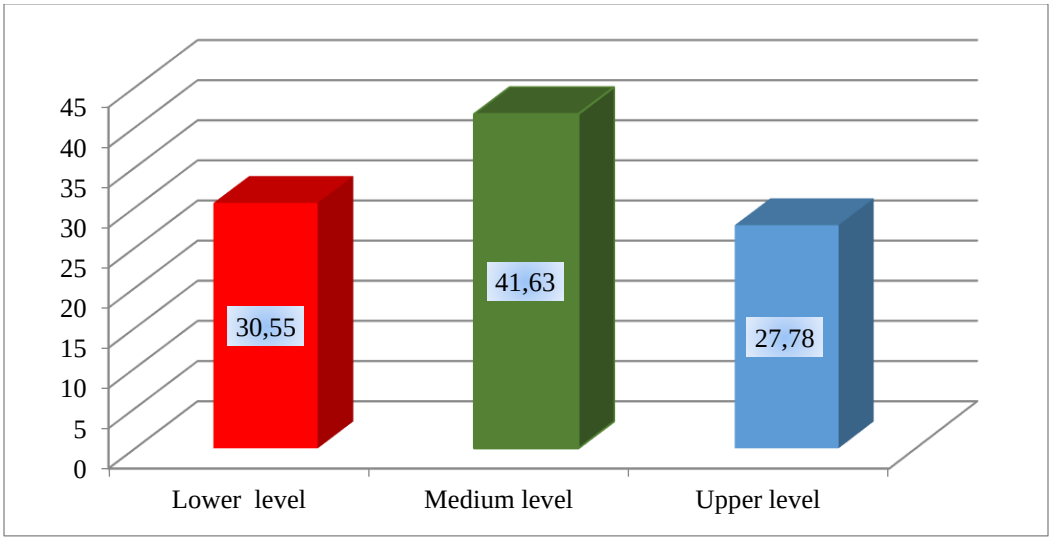


Figure 3. Chart with the distribution of results for the evaluation grid - field: Communication and Language (adapted) - final test

In order to do create an indicative chart, it was calculated the distribution of the results in the two tests (Synthetic chart with the distribution of the results at the Evaluation scale - field: communication and language (adapted) - initial testing (series 1) / final testing (series 2). From the resulting graph we can see an increase in the weight of the final level of the final test compared to the upper level of the initial testing (if at the beginning it was 16.67%, the final evaluation was 27.78).Comparing the data obtained from the initial and final tests, it is noted that there is a difference of 11.11% between the results obtained, the increase being recorded in the final testing. This score indicates an increase in the performance of pupils with special educational needs (mental retardation) in terms of functional vocabulary development, as well as their ability to understand and respond appropriately to the message received. Because they possess a poor, underdeveloped imagination, it is very difficult for children with mental retardation to engage in games with elements of imagination and invention. These children can only play with real objects. In addition, the game does not take more than a few minutes because it gets tired and deconcentrates quickly. Often, the rules of the game need to be repeated several times, the participants hardly understanding the essence of the game (Radu, 2000). Broadly speaking, the further schooling of these children will be based on age, character and depth of the deficiency, as well as the time of recovery. In this sense, it is particularly important to take into account the proximity development area, which researcher Vygotsky (1983) wrote: "The proximal development area is determined by the fact that a child cannot fulfil a task by himself, but he does

so with adult help. The area of actual development demonstrates the state of the child's cognitive sphere at the given stage of life, that is, what the child can perform without help from outside "(p. 135).

DISCUSSION and CONCLUSIONS

The results of the final tests revealed a significant increase in pupils' performance in terms of vocabulary and the amount of information they are using; a functional vocabulary development, as well as the development of information transfer capacity from similar situations.At the same time, the final results show an increase in the ability to correctly receive the verbal message, the ability to understand the meaning of some given words, and an adequate response to the message received.If the event is not adapted for students who need special support, participation restriction may occur (Coates & Vickerman 2010).

The Teachers should not only look at what they should do but how they will perform according to the intended learning outcome. However, a long-term plan with standards tailored to students who need special support is required. But, teachers need guidance, training and support on how to transform curriculum intentions into meaningful learning experiences for students who need special support. Therefore, given the potential positive effects of physical activity, exercise self-efficacy levels and academic achievements of LD (Learning Disabilities) students may be supportable with increased duration of the game and physical activities lesson. It can be asserted that game and physical activities lessons are an effective tool for children with learning disabilities to increase their self-efficacy and academic success (Demirci & Demirci 2018).

When the game is used in the educational process, it acquires significant psycho-pedagogical functions, ensures active participation of the pupil at the lesson, increases his / her interest for knowledge and the content of the lessons, offers the organized framework for practicing the communication in pairs, in small groups, with respect to the requirements of good communication. The game can be used as an attractive technique for exploring, practicing, and enhancing the content of any lesson that aims to develop communication to pupils with special educational needs, and for its success, the teacher must be mindful of respecting the methodical steps and individual peculiarities of students.

Cebotaru, N., & Racu, S. (2019). Communication development in children with special educational needs through game at physical education lessons. *Eurasian Journal of Sport Sciences and Education, 1*(1), 9-17.

REFERENCES

Cârstea, G.H. (1997). *Physical education, theory and basics of methodology*. Bucureşti: Ed. Universul. [Cârstea, G. (1997). Educaţia fizică. Teoria şi bazele metodicii. *ANEFS.-Bucureşti*.].

Cristea, C. G. (2008).*General pedagogy*. București: Ed. Didactică și Pedagogică.[Cristea, G. C. (2008). *Pedagogie generală*. Editura Didactică și Pedagogică.].

Cucoş, C. (2000). *General pedagogy*. Iaşi: Ed. Polirom. [Cucoş, C. (2000). Pedagogie generală. *Ed. Polirom, Iaşi*.].

Coates, J., Vickerman, P. (2010). Empowering Children with Special Educational Needs to Speak Up: Experiences of Inclusive Physical Education. *Disability and Rehabilitation, 32*(18): 1517–1526.

Dragnea, A., & Teodorescu-Mate S. (2002). *The theory of sport*, Bucureşti: Ed. Fest. [Dragnea, C. A., & Mate-Teodorescu, S. (2002). *Teoria sportului*. FEST.].

Demirci, P. T., Demirci, N. (2018). The effects of game and physıcal actıvıty lessons ın chıldren wıth learnıng dısabılıtıes. *Kinesiologia Slovenica, 24, 3*, 47–55.

Fernández Truan J C (2016) Augmentative Communicative Systems in Physical Education for Students with Special Educational Needs. *Sports Nutr Ther 1*: e101

Popovici, D.V., (2000).*Development of communication in children with mental disabilities*, Ed. ProHumanitate, Bucureşti, 309 p.[Popovici, D. V. (2002). *Dezvoltarea comunicarii la copiii cu deficiente mintale*. Pro Humanitate.].

Şerbănoiu, S. (2004).*Methodology of Physical Education*.Bucureşti: Cartea Universitară, [Şerbănoiu, S. (2004). *Metodica educaţiei fizice*. Bucureşti, Cartea Universitară.].

Scarlat, E., Scarlat, B., M. (2006). *School physical education guide*.București: Editura didactică și pedagogică. [Scarlat, E., & Scarlat, M. B. (2006). *Îndrumar de educaţie fizică şcolară*. Editura Didactică şi Pedagogică.]

Racu, A., Popovici D.V., &Racu S. (2010).*Psychopedagogy of integration*,ISFE-P. Chişinău: Tipografia Centrală, [Racu, A., Popovici, D. V., Danii, A., & Racu, S. (2014). Psihopedagogia integrării. *Chişinău: Tipografia Centrală*, 416.].

Racu, A., Racu S. (2013).*Encyclopaedia dictionary of special psychopedagogy*, ISFE-P. Chişinău: Tipografia Centrală. [Racu, A., & Racu, S. (2013). *Dicţionar enciclopedic de psihopedagogie specială*. Verlag nicht ermittelbar.].

Radu, G. (2000).*Psychopedagogy of mentally handicapped schoolchildren*, Ed. Pro Humanitate, Sibiu.[Radu, G. (2000). *Psihopedagogia scolarilor cu handicap mintal*. Pro Humanitate.]

Vygotsky, L.S. (1983).*Selected psychological works*. The basics of defectology.Moscova: Editura ASP, [Opere psihologice alese, vol. V, Bazele defectologiei].

EJSSE

Eurasian Journal of Sport Sciences and Education
Vol. 1, Issue 1, June, 2019
E-ISSN: 0000-0000
Published by Kadir YILDIZ
URL: http://www.dergipark.org.tr/ejsse

Üniversite Öğrencilerinde Premenstrual Sendrom ve Fiziksel Aktivite Düzeyi

Rukiye HÖBEK AKARSU[*1], Eylem YALMAN[1]

[1] Yozgat Bozok Üniversitesi, Sağlık Bilimleri Fakültesi, Yozgat, Türkiye

Orijinal Makale
Gönderi Tarihi: 13.05.2019 Kabul Tarihi: 30.06.2019 Online Yayın: 30.06.2019

Öz

Bu çalışmada üniversite öğrencilerinde PMS sıklığının ve fiziksel aktivite durumlarının belirlenmesi amaçlandı. Araştırma İç Anadolu bölgesinde bir sağlık bilimleri fakültesinde yapıldı. Örneklem seçimine gidilmeyip sağlık bilimleri fakültesi ebelik ve hemşirelik bölümü kız öğrencilerinin tamamına (N=380) ulaşılması amaçlandı. Çalışma evrenin %80'inine ulaşılarak 304 kız öğrenci ile tamamlandı. Veriler araştırmacı tarafından literatür taranarak hazırlanan Öğrenci Bilgi Formu, Premenstrual Sendrom Ölçeği (PMSÖ) ve Uluslararası Fiziksel Aktivite Anketi (UFAA) ile toplandı. Veriler sayı, yüzde, student t testi ve ki-kare testi kullanılarak değerlendirildi. Öğrencilerin yaş ortalamasının 19.6±1.8, BKI ortalamasının 21.8±3.2 ve menarş yaşı ortalamasının 13.2±1.2 olduğu, %71.3'ünün inaktif olduğu belirlendi. Çalışmada PMS görülme oranın %61.8 ve PMSÖ total puan ortalamasının 120.3±35.8 olduğu saptandı. Öğrencilerin aktivite düzeylerinin ve düzenli egzersiz yapma durumlarının PMS yaşama durumlarını etkilemediği saptandı (p>0,05). Katılımcıların yarısından fazlasının PMS deneyimledikleri ve fiziksel aktivite düzeyinin PMS deneyimleme durumunu etkilemediği belirlendi.

Anahtar kelimeler: Genç kadın, öğrenci, premenstrual sendrom, fiziksel aktivite.

Premenstrual Syndrome and Physical Activity Level in the University Students

Abstract

This study aims to determine the prevalence of Premenstrual Syndrome and status of physical activity in universty students. The study was conducted a health sciences faculty in Central Anatolia. It was aimed to reach all the female students of the faculty of health sciences, department of midwifery and nursing. The study was completed with 304 female students by reaching 80% of the universe. Data were collected by using Student İnformation Form prepared by the investigators, Premenstrual Syndrome scale and International Physical Activity Scale. The data were evaluated using number, percentage, student t test and chi-square test. It was determined that the mean age of the students was 19.6 ± 1.8 years, the mean BMI was 21.8 ± 3.2 and the mean age of menarche was 13.2 ± 1.2, 71.3% were inactive. It was found that the PMS incidence rate was 61.8% and PMSÖ total score was 120.3 ± 35.8. It was determined that activity level and regular exercise status of students did not affect PMS status (p> 0.05). More than half of the participants experienced PMS ve and physical activity did not affect PMS experience.

Keywords: Young woman, student, premenstrual syndrome, physical activity.

[*] Sorumlu Yazar: Rukiye HÖBEK AKARSU, E-posta: rukiye-hobek@hotmail.com

GİRİŞ

Premenstrüel sendrom (PMS), adet döngüsünün luteal fazında ortaya çıkan ve menstrüasyonun birkaç günü içinde kaybolan, tekrarlayan, orta-şiddetli duygusal, fiziksel ve davranışsal semptomlarla karakterize bir durumdur (Ryu ve Kim, 2015). Premenapozal dönemdeki kadınların yaklaşık %80'i adet döngüsünün luteal fazı sırasında bir veya daha fazla premenstrual semptom yaşadıklarını belirtmektedir. Ayrıca %20-30'u ise bu semptomların günlük yaşamlarını etkilediğini ifade etmektedir (Biggs ve Demuth, 2011). Özellikle PMS gibi menstrual komplikasyonlar genç kadınlarda başlıca jinekolojik problem olarak kabul edilmektedir (Zegeye, Megabiaw ve Mulu, 2009). Genç kadınlar ile yapılan bir çalışmada PMS sıklığının %65.2 olduğu belirtilmektedir (Aba, Ataman ve Dişsiz, 2018). PMS üniversite öğrenimine devam eden genç kadınların sosyal aktivitelerini, arkadaş ilişkilerini ve eğitimlerini olumsuz yönde etkilemektedir (Tenkir, Fisseha ve Ayele, 2003).

Etiyolojisi tam olarak bilinmemekle birlikte PMS'de semptomların nedeninin, over hormon düzeyleri ile ilişkili olduğu ve kadınların bu değişikliklere karşı aşırı duyarlı olduğu belirtilmektedir. Ve etiyolojisi tam olarak bilinmediği için tedavinin amacı PMS semptomlarını yönetebilmektir. Bu nedenle etiyolojisi tam olarak bilinmediği için tedavinin amacı PMS semptomlarını yönetebilmektir. PMS semptomlarının yönetiminde farmakolojik (ilaç, ameliyat) ve farmakolojik olmayan (egzersiz, diyet, beden-zihin temelli uygulamalar, masaj) yöntemler önerilmektedir (Schmidt, Nieman, Danaceau, Adams ve Rubinow, 1998; Panay, 2009; Ryu ve Kim, 2015). Ancak hafif ile orta düzeydeki semptomlara yönelik genellikle yaşam tarzı değişikliklerinden olan diyet ve egzersiz önerilmektedir (Morino, Egawa, Hirata, Nishimura ve Aoyama, 2016). Güney vd., (2017) tarafından yapılan bir çalışmada yüksek fiziksel aktivite düzeyinin premenstrual sendromu azalttığı belirtilmektedir Yapılan başka bir çalışmada da fiziksel aktivite düzeyi arttıkça premenstrual sendrom belirtilerinin azaldığı ifade edilmektedir (Teixeira, Oliveira ve Dias, 2013).

Düzenli fiziksel aktivitenin endorfin seviyesini artırıp, östradiol ve diğer steroid hormonlarının seviyesini azaltıp, kaslarda oksijen taşınmasını sağlayarak psikolojik iyilik halini geliştirebileceği ve PMS'yi azaltabileceği belirtilmektedir (Daley, 2009; Kroll-Desrosiers vd., 2017). Bu nedenle bu çalışma üniversite öğrencilerinin PMS deneyimleme sıklığını ve fiziksel aktivite durumlarını belirlemek amacıyla yapıldı.

GEREÇ-YÖNTEM

Araştırma İç Anadolu bölgesinde bir üniversitenin Sağlık Bilimleri Fakültesinde Aralık 2018-Şubat 2019 tarihleri arasında yapıldı. Çalışmanın evrenini Sağlık Bilimleri Fakültesi öğrenim gören 380 kız öğrenci oluşturdu. Örneklem seçimine gidilmeyip evrenin tamamına ulaşılması hedeflendi. Araştırma veri toplama tarihlerinde okulda olan, araştırmaya katılmayı kabul eden 304 kız öğrenci ile tamamlandı. Veriler toplanmadan önce çalışmanın yapılacağı kurumdan kurum izni, Yozgat Bozok Üniversitesi Klinik Araştırmalar Etik kurulundan etik kurul izni (sayı numarası: 99219772-044-395) alınmıştır. Veri toplama formları öğrencilere araştırmacılar tarafından derslerden önce dağıtılıp öğrenciler formları doldurduktan sonra geri toplanmıştır. Evrenin %80'ine ulaşıldı. Veriler araştırmacılar tarafından literatür taranarak hazırlanan öğrenci bilgi formu, Premenstrual Sendrom Ölçeği (PMSÖ), Uluslararası Fiziksel Aktivite Anketi (UFAA) ile toplandı.

Öğrenci Bilgi Formu (ÖBF): Öğrencilerin sosyodemografik (yaş, medeni durum, ekonomik durum, ekonomik durum vb.)ve menstrual özellikleri (menarş yaşı, menars düzeni, dismenore yaşama durumu v.b) belirlemeye amacıyla hazırlanmış 18 soru yer almaktadır.

Premenstrual Sendrom Ölçeği (PMSÖ): 2006 yılında Gençdoğan tarafından geliştirilen premenstrual semptomların şiddetini ölçmeyi amaçlayan bir ölçektir. Ölçek 5'li likert tipte "adetten bir hafta önceki süre içinde olma durumunu" düşünerek işaretletmesi istenen 44 durum belirteci yer almaktadır. PMSÖ depresif duygulanım, depresif düşünceler, anksiyete, sinirlilik, uyku değişiklikleri, ağrı, iştah değişiklikleri, şişkinlik yorgunluk 9 alt boyutundan oluşmaktadır. Alt boyut puanları, alt boyutlarda yer alan madde puanlarının toplanmasıyla elde edilmekte ve PMSÖ toplam puanı da alt boyut skorlarının toplamı ile bulunmaktadır. PMSÖ toplam puanı %50'den fazla olduğu durumlar PMS pozitif olarak sınıflandırılmaktadır. Ölçekten alınabilecek en yüksek puan 220, en düşük puan 44'tür. Ölçek puanının artması premenstrual semptomların şiddetinin arttığını belirtmektedir (Gençdoğan, 2006).

Uluslararası Fiziksel Aktivite Anketi (UFAA): Craig vd., (2003) tarafından geliştirilen, Türkçe geçerlilik ve güvenilirlik çalışması Öztürk tarafından yapılan ölçeğin amacı, 15-65 yaş aralığındaki bireylerin fiziksel aktivite düzeylerini belirlemektir. Ölçekte yer alan aktivitelerin değerlendirilmesinde yapılan her bir aktivitenin tek seferde en az 10 dk. yapılıyor olması ölçüt

alınmaktadır. Dakika, gün ve MET değeri çarpılarak "MET-dk./hafta'' olarak bir skor elde edilmektedir. 3000 MET-dk./hafta'nın altında olan değerler fiziksel olarak aktif olmayan bireyler olarak kabul edilmektedir (Craig vd., 2003; Öztürk, 2005).

Verilerin değerlendirilmesi

Veriler bilgisayar ortamında değerlendirildi. Verilerin değerlendirilmesinde sayı, yüzde, ortalama, standart sapma, minimum-maksimum, student t testi ve ki-kare testi kullanıldı.

BULGULAR

Öğrencilerin sosyo-demografik özellikleri tablo 1'de verildi. Öğrencilerin yaş ortalamasının 19.6±1.8, boy ortalamasının 163.0±6.5, kilo ortalamasının 58.0±8.7, Beden Kitle İndeksinin (BKİ) 21.8±3.2 olduğu saptandı. Katılımcıların %99'unun bekâr, %68.4'ünün geliri giderine denk, %77.6'sının çekirdek aileye sahip olduğu, %96.4'ünün çalışmadığı ve %85'inin yurtta kaldığı belirlendi (Tablo 1).

Tablo 1. Öğrencilerin sosyo-demografik özellikleri (n=304)

Sosyo-demografik Özellikler		**f**	**%**	**Toplam**	$\bar{x}$	**S**
Yaş					19.6	1.8
Boy				304	163.0	6.5
Vücut Ağırlığı (kg)					58.0	8.7
BKİ					21.8	3.2
Medeni durum	Evli	3	1.0	304		
	Bekar	301	99.0			
Ekonomik durum	Geliri giderinden az	75	24.7	304		
	Geliri giderine denk	208	68.4			
	Geliri giderinden fazla	21	6.9			
Aile tipi	Çekirdek	236	77.6	304		
	Geniş	59	19.4			
	Parçalanmış	9	3.0			
Barınılan yer	Aile ile birlikte	33	10.9	304		
	Ev	11	3.6			
	Yurt	260	85.5			
Çalışma durumu	Evet	11	3.6	304		
	Hayır	293	96.4			

Katılımcıların menstrual ve yaşam özellikleri tablo 2'de verildi. Öğrencilerin menarş yaşı ortalamasının 13.2±1.2 olduğu, %67.4'ünün adetlerinin düzenli olduğu, %94.1'inin herhangi bir jinekolojik sorunu olmadığı, %82.6'sının dismenore yaşadığı saptandı. Araştırmaya dâhil edilen

öğrencilerin %94.7'sinin kronik hastalığı olmadığı, %85.9'unun sigara içmediği, %84.9'unun düzenli egzersiz yapmadığı belirlendi.

Tablo 2. Öğrencilerin menstrual ve yaşam özellikleri

Sosyo-demografik Özellikler		f	%	Toplam	$\bar{x}$	S
Menarş yaşı ortalaması				304	13.2	1.2
Adet düzeni	Düzenli	205	67.4	304		
	Düzensiz	99	32.60			
Jinekolojik sorun olma durumu	Olan	18	5.9	304		
	Olmayan	286	94.1			
Dismenore yaşama durumu	Yaşayan	251	82.6	304		
	Yaşamayan	53	17.4			
Kronik hastalık durumu	Var	16	5.3	304		
	Yok	288	94.7			
Sigara içme durumu	Evet	43	14.1	304		
	Hayır	261	85.9			
Düzenli egzersiz yapma durumu	Evet	46	15.1	304		
	Hayır	258	84.9			

Öğrencilerin PMSÖ total puanları ve puan ortalamaları tablo 3'te verildi. Katılımcıların PMSÖ alt boyutlarından depresif duygulanım puan ortalamasının 20.4±6.9, anksiyete puan ortalamasının16.6±6.5, sinirlilik puan ortalamasının 14.2±6.0, depresif düşünceler puan ortalamasının 17.6±6.5, ağrı puan ortalamasının 8.2±3.4, iştah değişikleri puan ortalamasının 8.8±3.8, uyku değişiklikleri puan ortalamasının 8.6±3.5, şişkinlik puan ortalamasının 7.8±3.6 olduğu belirlendi. Total puan ortalaması ise 120.3±35.8 olarak saptandı. Katılımcıların %61.8'inde PMS olduğu belirlendi.

Tablo 3. Öğrencilerin PMSÖ total ve alt boyut puan ortalamaları

PMSÖ ve alt boyutları		f	%	Toplam	$\bar{x}$	S	Min	Max
PMS toplam				304	120.3	35.8	44	217
PMS alt boyutları								
	Depresif duygulanım				20.4	6.9	7	48
	Anksiyete				16.6	6.5	7	35
	Yorgunluk				17.8	6.0	6	30
	Sinirlilik			304	14.2	6.0	5	60
	Depresif düşüncüler				17.6	6.5	7	35
	Ağrı				8.2	3.4	3	15
	İştah değişiklikleri				8.8	3.8	3	18
	Uyku değişiklikleri				8.6	3.5	3	27
	Şişkinlik				7.8	3.6	3	15
PMS Durumu	PMS yok (<110 ve altı)	116	38.2					
	PMS var (>111 ve üzeri)	188	61.8					

Katılımcıların PMS yaşama durumlarına göre sosyo-demografik, dismenore ve günlük yaşam özelliklerinin karşılaştırılması tablo 4'te verildi. Premenstrual Sendrom Ölçeği kesme puanına göre (111 ve üzeri) PMS olan ve olmayanlar arasında barınılan yer, gelir durumu, aile tipi, sigara kullanma durumu, adet düzeni, jinekolojik sorun olma durumu, menarş yaşı, BKİ arasında istatistiksel olarak anlamlı bir fark saptanmamıştır (p>0,05). Premenstrual sendrom olan ve olmayan öğrencilerin yaş ortalaması ve dismenore yaşama durumları açısından karşılaştırıldıklarında, aralarında anlamlı bir fark olduğu belirlenmiştir (p<0,05).

Tablo 4. Öğrencilerin PMS yaşama durumlarına göre sosyo-demografik, dismenore ve günlük yaşam özelliklerinin karşılaştırılması

Değişkenler	**PMS var**		**PMS yok**		
	n	**%**	**n**	**%**	
Barınılan yer					
Aile ile birlikte	10	8.6	23	12.2	$\chi 2$=3,097
Ev	2	1.7	9	4.8	*p*=0,213
Yurt	104	89.7	156	83.0	
Gelir durumu					
Gelirim giderimden az	25	21.6	50	26.6	$\chi 2$=1,591
Gelirim giderime denk	81	69.8	127	67.6	*p*=0,451
Gelirim giderimden fazla	10	8.6	11	5.9	
Aile tipi					
Çekirdek	94	81.0	151	80.3	$\chi 2$=0,023
Geniş	22	19.0	37	19.7	*p*=0,878
Sigara kullanma durumu					
Kullanan	11	9.5	32	17	$\chi 2$=3,357
Kullanmayan	105	90.5	156	83.0	*p*=0,067
Adet düzeni					
Düzenli	80	69.0	125	66.5	$\chi 2$=3,745
Düzensiz	36	31	63	36.5	*p*=0,053
Jinekolojik sorun olma durumu					
Olan	5	4.3	11	5.9	$\chi 2$=0,342
Olmayan	111	95.7	171	94.1	*p*=0,559
Dismenore yaşama durumu					
Yaşayan	88	35.1	163	64.9	$\chi 2$=5,856
Yaşamayan	28	52.8	25	47.2	***p*=0,016**

	PMS var ortalama±SS	**PMS yok ortalama±SS**	
Yaş	19.3±2.6	19.8±1.1	*t*=-2.270 ***p*=0,024**
Menarş yaşı	13.3±1.0	13.1±1.2	*t*=1.519 *p*=0,130
BKİ	21.4±2.4	22.0±3.6	*t*=-1.603 *p*=0,110

t:student's t testi, $\chi 2$: ki-kare testi

Öğrencilerin PMS yaşama durumlarının fiziksel aktivite ve düzenli egzersiz yapma durumları ile karşılaştırılması tablo 5'te verildi. Premenstrual Sendrom Ölçeği kesme puanına göre (111 ve üzeri) PMS olan ve olmayanlar arasında Uluslararası Fiziksel Aktivite Değerlendirme Ölçeğine göre fiziksel aktivite düzeyi ve düzenli egzersiz yapma durumları arasında anlamlı bir fark olmadığı saptandı (p>0,05).

Tablo 5. Öğrencilerin PMS yaşama durumlarının fiziksel aktivite ve düzenli egzersiz yapma durumları ile karşılaştırılması

Değişkenler	**PMS var**		**PMS yok**		
	n	**%**	**n**	**%**	
Fiziksel aktivite düzeyi*					
İnaktif	82	70.7	135	71.8	$\chi 2$=0,306
Minimal aktif	18	15.6	31	16.5	p=0,858
Çok aktif	16	13.7	22	11.7	
Düzenli egzersiz yapma durumu					
Yapan	14	12.1	32	17.0	$\chi 2$=1,370
Yapmayan	102	87.9	156	83.0	p=0,242

* Uluslararası Fiziksel Aktivite Değerlendirme Anketi Kısa Formu'na (IPAQ) göre değerlendirilmiştir. χ2 : ki-kare testi

TARTIŞMA

Çalışmamıza katılan öğrencilerde PMS görülme sıklığı %61.8 olarak belirlendi. Kısa ve ark (2012) üniversite öğrencileri ile yaptıkları çalışmalarında PMS prevalansının %57.4 olduğunu belirtmektedir (Kısa, Zeyneloğlu ve Güler, 2012). Hemşirelik öğrencileri ile yapılan bir başka çalışmada ise PMS sıklığının %60.1 olduğu vurgulanmaktadır (Kırcan, Ergin, Adana ve Arslantaş, 2012). Literatürde PMS sıklığının araştırıldığı çalışmalarda PMS oranın %8.75 ve %85 arasında olduğu görülmektedir (Antai, Udezi, Ekanem, Okon ve Umoiyoho, 2004; Chandraratne ve Gunawardena, 2011; Erenel ve Senturk, 2007; Yilmaz ve Yazici S, 2008). Çalışmamızın sonuçları literatür ile benzerlik göstermektedir. Bu bulgular PMS'nin genç kadınlar arasında oldukça yaygın görülen bir jinekolojik sağlık sorun olduğunu doğrulamaktadır.

Öğrencilerin PMSÖ'den aldıkları toplam puan ortalamasının 120.3±35.8 olduğu, PMSÖ ölçeğinden alınan en düşük puanın 44 en yüksek puanın ise 217 olduğu belirlendi. PMS ölçeği alt boyutlarından en çok yakınmaları olanların sırasıyla depresif duygulanım, yorgunluk ve uyku olduğu saptandı. Yapılan bir çalışmada öğrencilerin PMSÖ'den aldıkları puan ortalamasının 116.56 ± 31.10 olduğu belirtilmektedir. Premenstrual dönemdeki yakınmaların sırasıyla iştah

değişimleri, depresif duygulanım ve yorgunluk olduğunu belirtmektedir (Kısa vd., 2012). Tanrıverdi, Selçuk ve Okanlı (2010) yaptıkları çalışmalarında öğrencilerin PMSÖ'den aldıkları puan ortalamasını 121.94± 31.27 olarak belirlediklerini ve yakınmaların sırasıyla iştah değişimi, sinirlilik ve ağrı olduğunu vurgulamaktadır. Yapılan bir çalışmada en fazla görülen PMS'lerin iştah değişimleri, şişkinlik, sinirlilik, depresif duygulanım, yorgunluk, ağrı, uyku değişimleri, depresif düşünceler ve anksiyete olduğu belirtilmektedir (Ölçer, Bakır ve Aslan, 2017). Başka bir çalışmada ise öğrencilerin sırasıyla en sık yaşadıkları semptomların karın ağrısı, sinirlilik ve yorgunluk olduğu ifade edilmektedir (Keskin, Yeşilfidan, Adana ve Okyay, 2016). Literatürdeki çalışmalarda PMS yakınmalarının çoğunlukla depresif duygulanım, yorgunluk, iştah değişiklikleri olduğu belirtilmektedir. Bu anlamda çalışmamızın sonuçları literatür ile uyumludur (Aba vd., 2018; Freeman vd., 2011; Gençdoğan, 2006; Kısa vd., 2012).

Düzenli yapılan fiziksel egzersizlerin fiziksel, emosyonel durumda ve hormonal sekresyonda değişiklikler yaratarak endokrin sistemi ve kontol mekanizmalarını etkileyerek menstrual siklusta değişikliklere neden olduğu belirtilmektedir (Goodman ve Warren, 2005; Hoch vd., 2009). Ancak çalışmamızda düzenli egzersiz yapma durumunun ve Uluslararası Fiziksel Aktivite Değerlendirme Ölçeğine göre fiziksel aktivite düzeyinin PMS yaşama durumunu etkilemediği saptandı ($p>0,05$). Yapılan bir çalışmada yüksek fiziksel aktivite düzeyinin premenstrual sendromu azalttığı belirtilmektedir (Güney, Ünver, Derya ve Uçar, 2017). Başka bir çalışmada da fiziksel aktivite düzeyi arttıkça premenstrual sendrom belirtilerinin azaldığı vurgulanmaktadır (Teixeira vd., 2013). Aba ve vd., (2018) tarafından yapılan bir çalışmada, PMS olan ve olmayan grupların fiziksel aktivite düzeyleri arasında ilişki bulunamadığı ifade edilmektedir. Literatürde çalışma sonuçlarını destekleyen ve desteklemeyen kaynaklar bulunmaktadır. Ancak literatürdeki kaynakların çoğu fiziksel aktivite düzeyinin PMS'yi etkilediği yönündedir (Teixeira vd., 2013; Güney vd., 2017; Haghighi, Jahromi ve Daryano Osh, 2015; Bayram, 2007). Çalışmamızda fiziksel aktivite düzeyinin PMS'yi etkilememe nedeninin öğrencilerin büyük çoğunluğunun inaktif düzeyde olduğundan kaynaklanmış olabileceği düşünülmektedir.

Sonuç olarak; çalışmaya katılan öğrencilerin yarısından fazlasının PMS deneyimledikleri, bu deneyimlerin sırasıyla depresif duygulanım, yorgunluk ve uyku olduğu ve öğrencilerinin %71.3'ünün inaktif olduğu belirlendi. Bu nedenle PMS deneyimleyen öğrencilerin PMS yönetebilmesi için gerekli farkındalığın ve eğitimlerin düzenlenmesi sağlanabilir. Ayrıca

öğrencilere fiziksel egzersizin yararlarının anlatılması ve fiziksel egzersizler için teşvik edilmelerinin fiziksel aktivite düzeylerini arttırmalarına katkı sağlayabileceği düşünülmektedir. Fiziksel aktivitenin PMS'ye etkisine ilişkin yapılan çalışma sonuçlarının değişkenlik göstermesi nedeniyle fiziksel aktivite ve PMS için randomize kontrollü, geniş örneklem gruplarında ileri araştırmalar yapılması önerilebilir.

KAYNAKÇALAR

Antai, A.B., Udezi, A.W., Ekanem, E.E., Okon, U.J., & Umoiyoho AU. Premenstrual syndrome: prevelance in students of the university of Calabar. *Negeria. Afr J Biomed Res*, *7*: 45-50.

Bayram, G.O. (2007). Sporcuların Premenstrual Sendrom Yönünden Sedanter Bayanlarla Karşılaştırılması. *Bakırköy Tıp Dergisi*, *3*(3):104-110.

Biggs, W.S., & Demuth, R.H. (2011) Premenstrual syndrome and premenstrual dysphoric disorder. *Am Fam Physician*, *84*: 918-924.

Chandraratne, N., & Gunawardena, N. (2011). Premenstrual syndrome: the experience from a sample of Sri Lanka adolescents. *J Pediatr Adolesc Gynecol*, *24*(5): 304-310.

Craig, C.L., Marshall, A.L., Sjostrom, M., Bauman, A.E., Booth, M.L., et al. (2003). International Physical Activity Questionnaire: 12-Country Reliability and Validity. *Medicine Science and Sports Exercise*, *35*: 1381-95.

Daley, A. (2009). Exercise and premenstrual symptomatology: a comprehensive review. *J Womens Health (Larchmt)*, *18*: 895–899.

Erenel, A., & Senturk, I. (2007). Health High School Students Experienced Dysmenorrhoea and Their Applications to Cope with it. *Hacettepe Univ J Nurs Faculty*, *14(*2): 48-60.

Freeman, E.W., Halberstadt, S.M., Rickels, K., Legler, J.M., Lin, H., & Sammel, M.D. (2011). Core symptoms that discriminate premenstrual syndrome. *Journal of Women's Health*, *20*(1): 29-35.

Gençdoğan, B. (2006). Premenstruel sendrom için yeni bir ölçek. *Türkiye'de Psikiyatri Dergisi*, *8*(2): 81-7.

Goodman, L.R., & Warren, M.P. (2005). The female athlete and menstrual function. *Current Opinion in Obstetrics and Gynecology*, *17*(5): 466-70.

Güney, E., Ünver, H., Derya, Y.A., & Uçar, T. (2017). Fiziksel Egzersiz Düzeylerinin Menstrual Siklusa Etkileri. *Düzce Üniversitesi Sağlık Bilimleri Enstitüsü Dergisi*, *7*(3): 137-142.

Haghighi, E.S., Jahromi, M.K., Daryano Osh, F. (2015). Relationship between cardiorespiratory fitness, habitual physical activity, body mass index and premenstrual symptoms in collegiate students. *The Journal of Sports Medicine and Physical Fitness*, *55*(6): 663-7.

Hoch, A.Z., Pajewski, N.M., Moraski, L., Carrera, G.F., Wilson, C.R. ,et al. (2009). Prevalence of the female athlete triad in high school athletes and sedentary students. *Clin J Sport Med*, *19*(5): 421-28.

Keskin, T. U., Yeşilfidan, D., Adana, F., & Okyay, P. (2016). Aydın sağlık yüksekokulu öğrencilerinde perimenstrüel şikâyetler ve başa çıkma yöntemleri. *TAF Preventive Medicine Bulletin*, *15*(5), 381-5.

Kırcan, N., Ergin, F., Adana, F., & Arslantaş, H. (2012). Hemşirelik öğrencilerinde premenstrüel sendrom prevalansı ve yaşam kalitesi ile ilişkisi. *Adnan Menderes Üniversitesi Tıp Fakültesi Dergisi*, *13*(1): 19-25.

Kısa S., Zeyneloğlu, S., & Güler, N. (2012). Üniversite öğrencilerinde premenstrual sendrom görülme sıklığı ve etkileyen faktörler. *Gümüşhane Üniversitesi Sağlık Bilimleri Dergisi*, *1*(4): 284-97.

Kroll-Desrosiers, A. R., Ronnenberg, A. G., Zagarins, S. E., Houghton, S. C., Takashima-Uebelhoer, B. B., & Bertone-Johnson, E. R. (2017). Recreational physical activity and premenstrual syndrome in young adult women: a cross-sectional study. *PloS One*, *12*(1), e0169728.

Morino, S., Egawa, M., Hirata, H., Nishimura, H., & Aoyama, T. (2016). Association between premenstrual syndrome and daily physical activity levels. *J Womens Health, Issues Care, 5*(5): 1- 4.

Ölçer, Z., Bakır, N., & Aslan, E. (2017). Üniversite Öğrencilerinde Kişilik Özelliklerinin Premenstrual Şikâyetlere Etkisi. *Düzce Üniversitesi Sağlık Bilimleri Enstitüsü Dergisi*, *1*(1), 30-7.

Öztürk, M. (2005). Üniversitede eğitim-öğretim gören öğrencilerde Uluslararası Fiziksel Aktivite Anketinin geçerliliği ve güvenirliği ve fiziksel aktivite düzeylerinin belirlenmesi. (Yüksek Lisans Tezi) Hacettepe Üniversitesi, Ankara, Türkiye.

Panay, N. (2009). Management of premenstrual syndrome. *J Fam Plann Reprod Health Care, 35*: 187-194.

Ryu, A., & Kim, T. H. (2015). Premenstrual syndrome: A mini review. *Maturitas*, *82*(4): 436-40.

Schmidt, J., Nieman, L.K., Danaceau, M.A., Adams L.F., & Rubinow, D.R. (1998). Differential behavioral effects of gonadal steroids in women with and in those without premenstrual syndrome. *N. Engl. J. Med*., *338*: 209-16.

Tanrıverdi, G., Selçuk, E., & Okanlı, A. (2010). Üniversite öğrencilerinde premenstrual sendrom prevelansı. *Anadolu Hemşirelik ve Sağlık Bilimleri Dergisi*, *13*(1): 52-7.

Teixeira, A.L.S., Oliveira, E.C.M., & Dias, M.R.C. (2013). Relationship between the level of physical activity and premenstrual syndrome incidence. *Rev Bras Ginecol Obstet*, 35(5): 210-4.

Tenkir, A., Fisseha, N., & Ayele, B. (2003). Premenstrual syndrom: prevalence and effect on academic and social performances of students in Jimma University, Ethiopia. *Ethiopian Journal of Health Development*, *17*(3), 181-8.

Yilmaz, T., & Yazici, S. (2008). Hemşirelik ve ebelik öğrencilerinin dismenore özellikleri. *Anadolu Hemşirelik ve Sağlık Bilimleri Dergisi, 11*(3): 1-8.

Zegeye, D.T., Megabiaw, B., & Mulu, A. (2009). Age at menarche and the menstrual pattern of secondary school adolescents in northwest Ethiopia. *BMC Womens Health*, *9*: 29.

Premenstrual Syndrome and Physical Activity Level in the University Students

Extended Abstract

Premenstrual syndrome is characterized by recurrent, moderate to severe emotional, physical and behavioral symptoms that occur during the luteal phase of the menstrual cycle and disappear within a few days of menstruation. It is particularly common in the younger age groups and public health problem that affects most young women. Premenstrual syndrome adversely affects the social activities, friendship and education of young women who continue their university education. Pharmacological and non-pharmacological methods are recommended for the management of premenstrual syndrome symptoms. However, diet and exercise, usually lifestyle changes, are recommended for mild to moderate symptoms. Exercises such as walking and slow running are a few suitable methods for settling down the tension and alleviate the premenstrual syndrome. This study aims to determine the prevalence of Premenstrual Syndrome and status of physical activity in universty students.

The research was conducted between December 2018 and February 2019 at the Faculty of Health Sciences of a university in Central Anatolia. The population of the study consisted of 380 female students studying at the Faculty of Health Sciences. It was aimed to reach all the female students of the faculty of health sciences, department of midwifery and nursing. The study was completed with 304 female students by reaching 80% of the universe. Before the data were collected, the permission of the institution was obtained and the permission of the ethics committee was obtained from Yozgat Bozok University Clinical Research Ethics Committee. Data collection forms were handed out to the students by the researchers before the lectures and collected after the students completed the forms. Data were collected by using Student İnformation Form prepared by the investigator, Premenstrual Syndrome scale and International Physical Activity Scale.

Student İnformation Form prepared by the investigators. There are 18 questions created to determine the sociodemographic (age, marital status, economic status, economic status, etc.) and menstrual characteristics (menarche age, menars order, dysmenorrhea survival status, etc.) of the students.

Premenstrual Syndrome Scale was developed in 2006 by Gençdoğan. It is a 5-point Likert scale. The scale aims to measure the severity of pms. It consists of 44 items. There are 9 bottom size. Cases where the total PSMS score is more than 50% are classified as premenstrual syndrome

positive. The highest score that can be obtained from the scale is 220 and the lowest score is 44. Increasing the scale score indicates that the severity of premenstrual symptoms increased.

International Physical Activity Scale, was developed Craig et al., (2003). The Turkish validity and reliability study was conducted by Öztürk. The aim of the scale is to determine the physical activity levels of individuals between the ages of 15-65. Activity level is defined by met value. Values less than 3000 MET / min / week are considered as physically inactive individuals.

Data were evaluated on computer. The data were evaluated using number, percentage, student t test and chi-square test. It was determined that the mean age of the students was 19.6 ± 1.8 years, the mean BMI was 21.8 ± 3.2 and 71.3% were inactive. In our study, the menarche mean age of the students were 13.2 ± 1.2 and prevalence of the PMS was determined to be 61.8%. It was determined that 94.7% of the students included in the study had no chronic disease, 85.9% did not smoke and 84.9% did not exercise regularly. Premenstrual syndrome scale subscales mean score of of the participants were depressive affect 20.4 ± 6.9, anxiety 16.6 ± 6.5, irritability 14.2 ± 6.0, depressive thoughts 17.6 ± 6.5, pain s 8.2 ± 3.4, appetite changes 8.8 ± 3.8, sleep changes 8.6 ± 3.5, bloating score 7.8 ± 3.6. Premenstrual syndrome scale total score was 120.3 ± 35.8. It was determine that income, family type, smoking status, menstrual cyle, gynecological problems, menarche age, BMI, activity level, exercise status of students did not affect premenstrual syndrome status ($p > 0.05$). The mean age and dysmenorrhea living status of the students affected premenstrual syndrome status ($p < 0.05$).

As a result; more than half of the students who participated in the study experienced PMS. These experiences were depressive affect, fatigue and sleep respectively. 71.3% of the students were inactive. Therefore, it is possible to organize the necessary awareness and trainings for premenstrual syndrome students to manage premenstrual syndrome. Physical exercise can also be explained to students and encouraged for physical exercise. The results of studies related to physical activity vary. Further research may be recommended for randomized controlled, large sample groups for physical activity and premenstrual syndrome.