



1. We must also mention the fact that, although throughout the year we paid close attention to the subject of our research, the sports classes didn't focus only on force, but they were in accordance with the requests of the teacher's plans activities.

2. By studying different papers that have as subject aspects in this field, I came to the conclusion that the methods selected were in accordance with the objectives I intended to reach, and Finichiu, (1998) paper, "The Efficiency Degree of measurement and Evaluation Methods of the Explosive Force", confirmed through the analysis and comparative technique of the tests that the means selected were the appropriate ones.

Bibliography

- Albu, C., Albu, A., 1999, Psihomotricitatea, Iași, Publishing House SpiruHaret.
Chiriță, G., 1977, Pedagogie. București: Publishing House Sport - Turism.
Colibaba, E. D., Niculescu A., 2002, Regândirea sistemului de evaluare a studenților, Magazine Viitorul, no.4, Craiova.
Dragnea, A., 1984, Măsurarea și evaluarea în educația fizică și sport. Bucharest: Publishing House Sport - Turism, 1984.

- Dragnea, A., Șteodorescu, S., 2000, Teoria educației fizice și isportului. Bucharest: Publishing House CarteaȘcolii.
Epuran, M., 2005, Metodologia cercetării activităților corporale. Bucharest: Publishing House Fest.
Finichiu, M., 1998. Gradul de eficiență a metodelor de măsurare și evaluare a forței explozive, Sesiune Jubiliara 1948-1998, Univ. Petrol-Gaze Ploiesti, 28-29 mai 1998.
Lucuț, G., 2000, Rădulescu S.M., Calitatea vieții și indicatorii sociali, Publishing House Lumina Lex, Bucharest, p. 58.
Mihăilă L., 2006, Handbal pregătirea fizică specific diferențiată, Publishing House Valinex SA, Chișinău.
Niculescu, M., 2002, Metodologia cercetării științifice în educație fizică și sport. Bucharest: Publishing House ANEFS,
Niculescu, M., Georgescu, L., Marinescu, A., 2006, Condiția fizică și sănătatea, Publishing House Universitaria, Craiova.
Tudor, V., 2005, Măsurarea și evaluarea în cultură fizică și sport. Buchares: Publishing House Alpha.

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AN ANALYSIS CONCERNING THE CHANGES ABOUT THE LEVEL OF ANXIETY EXPERIENCED BY THE PERSONEL OF THE 25TH WINTER UNIVERSIADE COORDINATION CENTER

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Abstract

The aim of this research is to determine the level of anxiety experienced by the personnel for the 25th Winter Universiade Coordination Center and to observe whether there is any reaction against some demographical factors.

Spielberg State-Trait Anxiety Inventory (STAI) was implemented as pre-test and post-test on 79 women and 144 men, 223 in total working for the coordination 4 months and 4 days to the competitions to acquire data about the level of anxiety.

Results. Frequency analysis for the SPSS program, independent samples t-tests and one way ANOVA were applied during the statistical evaluation of the acquired data.

Conclusions. According to the data acquired, the study concludes that the trait anxiety level experienced by the personnel of the coordination decreased as days passed toward the beginning of the competition and in contrast, state anxiety level of them increased as the beginning of the competition approached.

Key Words: anxiety, winter Universiade.

Introduction

Sports has been increasingly influencing people from all around the world day by day no matter whether people take part in sports actively or passively. Sports has been developing in parallel with economy day by day and also has begun to play an increasingly

active role in world market. New records have been broken in sports with the help of developing science and technology and the economy, technology, education and development levels that the sports teams and athletes represent in sports areas have begun to compete against one another.

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Sports has become a symbol that represents the development level of a country (Gümüş, 2002). The position of the sports as a representative of the development level of the countries has brought some responsibilities to the athletes psychologically and there has arisen an urgent necessity to handle with the athletes as a psycho-social entity from a scientific perspective (Başaran et al., 2009). Previous studies have investigated the relationship between anxiety level and performances of athletes and they have come to the conclusion that performance alone is not sufficient for the excellence of physical capacity and furthermore, psychological factors also play a great role (Akarçeşme, 2004). While psychological state of athletes affects their physical capacities and performances, psychological state of the employees working for the organization will also influence the quality of the organization. That is why the investigation of anxiety level of employees who work for Winter Universiade is of significant value.

The term 'anxiety' has been one of the most frequently used words throughout the human history. The term 'anxiety' has been firstly used in the first half of the century in the field of psychology and the studies related to this field were mostly conducted at the end of 1940s. Freud has been the first to use this term and investigated its reasons as well as defining the term as a concept (Köknel, 1988). According to Freud, anxiety functions as a factor which warns people against the threats coming from physical or social environment, helps them fit into society and live comfortably in the world. Furthermore, anxiety at normal level is quite necessary for people to survive (Geçtan, 1981).

Two types of anxiety were investigated in the survey, which were used to measure the anxiety level in our study. Trait anxiety results from personal characteristics of individuals that endure over time while state anxiety is the negative result expectation that individuals feel about any specific circumstances (Kapıkıran, 2002). State anxiety has been defined as an emotional situation that leads to an increase in anxiety, fear, blood pressure and arousal level (Zeng et al., 2008). Additionally, anxiety strongly influences individuals in their lives and frequently manifests itself across various situations as a reason of maladjustment (Jeffrey, 2003).

State anxiety is the emotive situation that is characterized by fear, anxiety and tender that is felt at that moment. It involves the feeling of anxiety and tender that accompany physiological stimulus. According to Spielberg, state anxiety is like a kinesthetic energy. Or, it is even the immediate reaction that occurs at the level of various violence levels (Cox, 1990). State anxiety is the subjective fear that an individual feels due to the stressful situation which the individual bears (Öner, Le Compte, 1983). Christopher (2002) has defined the state anxiety as "a conscious perception of the feeling of anxiety along

with mental fatigue, or activation of parasympathetic nervous system or stimulus (Bezek, 2008).

Trait anxiety, on the other hand, can be defined as an inclination of individuals to feel or interpret most of situations as stressful. As is it obviously understood from the term itself, this type of anxiety is stable and perpetual when compared to state anxiety which refers to temporary and uncomfortable experience. If an individual has an inclination to feel anxiety, he/she has a greater tendency to experience more anxiety this means that the situation differs from person to person according to type of personality. Trait anxiety may not be obviously observed as in state anxiety. In order to observe this type of anxiety, the frequency and violence of state anxiety can be analyzed for the benefit of trait anxiety's observation (Bezek, 2008). Accordingly, individuals who have a high level of trait anxiety have greater tendency to be more easily and frequently offended than those with low level of trait anxiety and feel the state anxiety more frequently and strongly (Özgür, 1984). According to Matthew (2006), individuals having high level of trait anxiety either define most situations as a potentially threat risk or react accordingly; or react against threat risks more strongly than as in the state anxiety; or shows both reactions.

Trait anxiety is the inclination of individuals toward their own anxiety experience. This can be either defined as the perception of the situations that the individuals are in as stressful or the tendency to interpret this as a stress. According to objective criteria, trait anxiety is the infelicity or dissatisfaction that stems from the perception of neutral situations as dangerous or threatening by individuals (Bezek, 2008). Individuals with high level of such kind of anxiety have greater tendency to be easily offended and slip into a mood of pessimism. These individuals experience trait anxiety more frequently and densely than others (Shoen, 1993).

Material and methods

The aim of this study is to determine the level of anxiety experienced by the personnel working for the 25th Winter Universiade Coordination Center and to investigate whether there is any reaction observed against some demographical factors.

This study includes 79 females and 144 males, 223 personnel in total working for the 25th Winter Universiade coordination center, chosen randomly for the study.

Spielberg State-Trait Anxiety Inventory (STAI) Scale, developed by Spielberg and his friends (1964), was used in the study the reliability and validity studies of which were conducted by Öner and Le Compte (1983) in order to determine the state and trait anxiety level of the personnel.

This type of scale which is a kind of self-assessment one includes 40 items consisting of short statements. State and trait anxiety scales are

independent of each other each consisting of 20 items. All items were given a value between 1 and 4, providing that scores of all reverse items within the scale were reversed. Total score obtained from the scale varies from 20 to 80. High score refers to high anxiety level while low score refers to low anxiety level (Dursun, Aytac, 2009).

SPSS was used and significance level at 0.05 level was accepted for the analysis of acquired data.

Findings

Table 1. Demographic Features of Participants

Sex	N	%
Female	79	35.4
Male	144	64.6
Marital Status	N	%
Married	44	19.7
Single	179	80.3
Status	N	%
Directors	43	19.3
Personnel	180	80.7
Educational Status	N	%
Bachelors	107	48
Postgraduates	58	26
Undergraduates	40	17.9
Elementary schools	18	8.1
Total	223	100

Table I which presents the gender distribution of participants shows that 79 females in total comprise 35,4 % of the distribution while 144 males comprise 64,4 %. When the marital status is concerned, 19, 7 % of the participants consists of married ones while 80,3 % includes single individuals. Concerning the status factor, 43 participants are directors comprising 19,3%

Frequency analysis was used in order to determine the demographic features of participants and independent samples t-tests were used in order to determine the their anxiety levels in terms of anxiety changes over time, gender, status and marital status. Furthermore, one-way ANOVA was used for the analysis of anxiety levels according to their education levels.

of the total number while 180 participants are personnel comprising 80,7 %. Considering educational backgrounds of participants, 107 participants are bachelors comprising 48 % , 58 participants are postgraduates comprising 26 % of the total number, 40 are undergraduates consisting of 17, 9 % and lastly, 18 participants are graduates from elementary schools.

Table 2. Paired Sample T-Test Results of Anxiety Levels of Participants

Sub-Scales	(Pre-Test) –(Post-Test)							
	Before 4 months			Before 4 days			Tests	
	N	Mean	Std.Dev.	N	Mean	Std.Dev.	t	p
State Anxiety	223	40.88	9.191	223	45.83	10.132	-3,901	,000*
Trait Anxiety	223	43.83	6.962	223	38.56	9.901	-5,797	,000*

Table 2 which presents the changes at participants' anxiety levels that endure over time indicates that there is a statistically significant

difference for both state (p=,000) and trait (p=,000) anxiety levels (p<0,05).

Accordingly, concerning state anxiety, anxiety level of participants 4 months to Universiade (X=40,88



$\pm 9,191$) is lower than that of 4 days to Universiade ($X=45,83 \pm 10,132$).

In terms of trait anxiety of the personnel, their anxiety level 4 months to opening of Universiade

($X=43,83 \pm 6,962$) is higher than that of those 4 days to opening of Universiade ($X=38,56 \pm 9,901$).

Table 3- Independent Sample T-Test Results of Gender Differences

Sub-Scales	Sex	Time	\bar{X}	s.d.	t	p
State Anxiety	Male (N=144)	before 4 months	39.23	11.132	-3,901	,132
	Female (N=79)		38.76	9.135		
	Male (N=144)	before 4 days	45.93	7.421		
	Female (N=79)		44.12	4,123		
Trait Anxiety	Male (N=144)	before 4 months	44.54	8.801	-5,797	,194
	Female (N=79)		43.12	8.801		
	Male (N=144)	before 4 days	39.13	6.912		
	Female (N=79)		38.11	6.912		

*($p < 0,05$)

Table 3 presents us the gender differences among participants according to state and trait anxiety levels and it shows that there is not a statistically significant difference between pre-test that was

administered 4 months to the Universiade and post-test administered to participants 4 days to Universiade ($p < 0,05$).

Table 4- Independent Sample T-Test Results of Participants in Terms of Marital Status

Sub-Scales	Marital Status	Time	\bar{X}	s.d.	t	p
State Anxiety	Married (N=44)	before 4 months	40.76	4,849	-1,231	,222
	Single (N=179)		41.23	2,779		
	Married (N=44)	before 4 days	44.19	2,244		
	Single (N=179)		45.63	3,687		
Trait Anxiety	Married (N=44)	before 4 months	42.02	6,198	-5,216	,413
	Single (N=179)		43.44	5,067		
	Married (N=44)	before 4 days	37.01	5,021		
	Single (N=179)		38.03	2,613		

*($p < 0, 05$)

When we have a look at the marital status of participants, there is not a statistically significant difference in the results of pre-test 4 months to

Universiade and post-test 4 days to Universiade in terms of trait and state anxiety ($p < 0,05$).

Table 5- Independent Sample T-Test Results of Participants in Terms of Status

Sub-Scales	Status	Time	\bar{X}	s.d.	t	p
State Anxiety	Directors (N=43)	before 4 months	41.19	2,112	-2,118	,637
	Personnel (N=180)		40.37	3,395		
	Directors (N=43)	before 4 days	40.99	4,145		
	Personnel (N=180)		39.82	1,687		
Trait Anxiety	Directors (N=43)	before 4 months	40.02	2,978	-4,367	,373
	Personnel (N=180)		39.59	5,344		
	Directors (N=43)	before 4 days	39.14	5,222		
	Personnel (N=180)		39.03	3,139		

*($p < 0, 05$)

According to t-test results in terms of participants' status, there is not a statistically significant difference between pre-test 4 months to

Universiade and post-test 4 days to Universiade in terms of state and trait anxiety levels ($p < 0, 05$).

Table 6- Independent Sample T-Test Results of Participants in Terms of Educational Status

Sub-Scales	Educational Status	Time	\bar{X}	s.s	f	p		
State Anxiety	Bachelors (N=107)	before 4 months	41.19	5,158	-2,118	,065		
	Postgraduates (N=58)		39.99	2,389				
	Undergraduates (N=40)		41.34	3,892				
	Elementary School (N=107)		42.06	6,598				
	Bachelors (N=107)	before 4 days	44.67	4,198			-3,859	,112
	Postgraduates (N=58)		43.99	4,569				
	Undergraduates (N=40)		45.99	2,758				
	Elementary School (N=107)		46.01	3,004				
Trait Anxiety	Bachelors (N=107)	before 4 months	45.13	8,358	-1,452	,164		
	Postgraduates (N=58)		45.32	2,709				
	Undergraduates (N=40)		44.99	2,345				
	Elementary School (N=107)		44.45	2,123				
	Bachelors (N=107)	before 4 days	42.22	8,901			-2,132	,231
	Postgraduates (N=58)		42.44	3,528				
	Undergraduates (N=40)		41.79	5,123				
	Elementary School (N=107)		41.89	1,283				

*(p<0, 05)

According to Table 6, there is not a statistically significant difference between the results of pre-test 4 months to Universiade and post-test 4 days to Universiade in terms of state and trait anxiety levels (p>0,05).

Results

The present study which investigates change of anxiety levels of personnel working for 25th Winter Universiade coordination center through time implies the following conclusions:

According to the findings, state anxiety level 4 months to Universiade ($X= 40,88 \pm 9,191$) is lower than that of 4 days to Universiade ($X= 45,83 \pm 10,132$). Considering that state anxiety is the emotive situation characterized by fear, worry and tender, the increase in state anxiety may stem from the fact that there may arise some problems before the opening of the Universiade and there was little time to the Universiade in order to solve them thereby causing uneasiness.

On the other hand, trait anxiety seems to be higher 4 months to Universiade ($X= 43,83 \pm 6,962$) than that of 4 days to Universiade ($X= 38,56 \pm 9,901$). Taking in to consideration that trait anxiety refers to regarding the situations within which the individuals live as stressful or the inclination to interpret like this, trait anxiety stems from the fact that participants feel to come over the stressful situation as time passes approaching towards the opening of the winter Universiade.

Discussion

The findings of the present study which also investigates the anxiety levels in terms of gender differences show that there is not a statistically

significant difference. In the studies of Üngören (2007) on the high school and university students from Tourism Education field and Doğan and Çoban (2009) on the university students at the faculty of Education, the researchers did not find a statistically significant difference between gender and anxiety. Ocaktan and et al. also did not find any significant difference between them in their study with health personnel working at Health center. Furthermore, the studies in the literature which have not found any statistically significant difference between gender and anxiety are as follows: Arslan, 2007; Tümerdem, 2007; Genç, 2008. These findings support the finding of the present study. However, there are also other studies that conclude significant difference in terms of gender differences and they are as follows: Dursun, Aytaç, 2009; Ceyhan, 2004; Şahin, 2009, Ghaderi et al., 2009). Their findings are in contrast to the finding of the present study.

In terms of marital status of participants with regards to anxiety levels, no significant difference was revealed. Despite the non-significance in terms of marital status, single individuals seem to have higher state and trait anxiety when compared to married ones. The studies of Schneier et al., 1992; Amies et al., 1983; Akdemir, Cinemre, 1996 also support the finding of the present study. This finding may result from the fact that single participants have greater goals for the future and married ones do not have regular life styles when compared to single ones.

Another finding of the present study in terms of participants' status with regards to anxiety level, no significant difference was revealed. Even though there was not a significant difference in terms of status, administrators tended to feel more anxiety than other participants. This may stem from that these types of



personnel have more responsibilities and they are also responsible for those working under them therefore they feel more anxiety.

Conclusions

According to the findings of the present study, there was not a statistically significant difference in terms of educational background. However, while educational level decreased state anxiety level increased. The fact that those with low educational level have less self-esteem as they are given a heavy load of work may lead to difficulties for them even though they have fewer responsibilities when compared to those with high educational level. Moreover, the fact that those with low educational level work in lower positions and they are controlled by supervisors may even cause anxiety.

Erzurum 25th Winter Universiade which is among the greatest organizations realized in our country, in Turkey, has had the personnel who took charge of all kinds of responsibilities and played a significant role during the candidacy process for the Olympics and recognition of Turkey. Because of this reason, it is of significant value to investigate the anxiety levels of personnel working for 25th Winter Universiade Coordination as their performances directly affect the organization. The lower the anxiety level is, the higher the performance is. That is why apart from enhancing physical conditions such as wages, working conditions, development and etc., psychological situations of personnel should also be taken into consideration.

References

- Akarçeşme, C., 2004, Voleybolda Müsabaka Öncesi Durumluk Kaygı İle Performans Ölçütleri Arasındaki İlişki, Yüksek Lisans Tezi, Gazi Üniversitesi Sağlık Bilimleri Enstitüsü, Ankara.
- Akdemir, A., Cinemre, B., 1996, Sosyal fobi: epidemioloji, eşlik eden hastalıklar, klinik gidiş, prognoz. *Psikiyatri Psikoloji Psikofarmakoloji Dergisi*, 4:11-17.
- Amies, P.L. et al., 1983, Social phobia: a comparative clinical study. *Br J Psychiatry*, 142:174-179.
- Arslan, Ç., 2007, "Üniversite Öğrencilerinin Sürekli Kaygı ve Kişisel Kararsızlık Düzeylerinin İncelenmesi", Yayınlanmamış Yüksek Lisans Tezi, Selçuk Üniversitesi Sosyal Bilimler Enstitüsü, Konya.
- Başaran, H.M. et al., 2009, Sporcularda Durumluk ve Sürekli Kaygı Düzeylerinin Bazı Değişkenlere Göre İncelenmesi, Selçuk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi S.21,SS.534.
- Bezek, N.T., 2008, TBL (Türkiye Erkekler Basketbol Birinci Ligi)'deki Basketbolcularda Performans Kaygı İlişkisi, Selçuk Üniversitesi Sağlık bilimleri Enstitüsü Yüksek Lisans Tezi, Konya.
- Ceyhan, A.A., 2004, "Ortaöğretim Alan Öğretmenliği Tezsiz Yüksek Lisans Programına Devam Eden Öğretmen Adaylarının Umutsuzluk Düzeylerinin İncelenmesi" *Sosyal Bilimler Dergisi*, 2004/1, ss.91-102.
- Christopher, M.J., 2002, Anxiety arousal and visual attention: a mechanistic account of performance variability, Department of Exercise and Sport Sciences, University of Florida, USA.
- Cox, H.R., 1990, Sport Psychology Concepts and Applications, Brown Publishers, ss.212,USA.
- Doğan, T., Çoban, A.E., 2009, "Eğitim Fakültesi Öğrencilerinin Öğretmenlik Mesleğine Yönelik Tutumları ile Kaygı Düzeyleri Arasındaki İlişkinin İncelenmesi", *Eğitim ve Bilim*, Cilt 34, Sayı 153, ss.157-168.
- Dursun, S., Aytaç, S., 2009, Üniversite Öğrencileri Arasında İşsizlik Kaygısı, *Uludağ Üniversitesi İktisadi ve İdari Bilimler Dergisi*, Cilt:28, s.1, s.s.75.
- Geçtan, E., 1999, İnsan Olmak. 20. Basım, Remzi Kitabevi. İstanbul.
- Gümüş, M., 2002, Profesyonel Futbol Takımlarında Puan Sıralamasına Göre Durumluk Kaygı Düzeylerinin İncelenmesi, Yüksek Lisans Tezi, Sakarya Üniversitesi Sosyal Bilimler Enstitüsü, Sakarya.
- Genç, H., 2008, "Gazi Üniversitesi Gazi Eğitim Fakültesi Güzel Sanatlar Eğitimi Bölümü Resim-İş Eğitimi Anabilim Dalı Öğrencilerinin Kaygı Düzeyleri Üzerine Bir Durum Çalışması", Yayınlanmamış Yüksek Lisans Tezi, Gazi Üniversitesi Eğitim Bilimleri Enstitüsü, Ankara.
- Ghaderi, A.R., Venkatesh Kumar, G., Sampath, K., 2009, "Depression, Anxiety and Stress among the Indian and Iranian Students", *Journal of the Indian Academy of Applied Psychology*, January 2009, Vol. 35, No.1, pp. 33-37.
- Jeffrey, R.S., 2003, Use and abuse of academic examinations in stress research, *Psychosomatic Medicine*, 65, pp.1055-1057.
- Kapikiran, Ş., 2002, Üniversite öğrencilerinin sınav kaygısının bazı psiko-sosyal değişkenlerle ilişkisi üzerine bir inceleme, Pamukkale Üniversitesi Eğitim Fakültesi Dergisi, Sayı:11, s:34-43.
- Köknel, Ö., 1988, Zorlanan İnsan, 2. basım, Altın Kitaplar Yayınları, İstanbul.
- Matthew, A.P., Harwood, C., 2006, The performance environment of the England youth soccer teams, School of sport and exercise sciences, Loughborough University, UK.
- Shoen Ferld, R.R., 1993, Dimensions anxiety and their effects on an aspect of the performance



- process commissions of the menter arousal, Universty of Sundiago, USA.
- Ocaktan, E.M., Keklik, A., ÇÖL, M., 2002, Abidinpaşa Sağlık Grup Başkanlığı'na Bağlı Sağlık Ocaklarında Çalışan Sağlık Personelinde Spielberger Durumluk ve Sürekli Kaygı Düzeyi, Ankara Üniversitesi Tıp Fakültesi Dergisi, C.55, S.1, ss.21-28. Ankara
- Öner, N., Le Compte, A., 1983, Durumluk-Sürekli Kaygı Envanteri El Kitabı, Boğaziçi Üniversitesi Matbaası, 1 Baskı, İstanbul.
- Özgür, G., 1984, Ege Üniversitesi birinci sınıf öğrencilerin klinik uygulaması kaygı düzeylerin incelenmesi, Ege Üniversitesi Sağlık Bilimleri Enstitüsü yüksek lisans tezi, İzmir.
- Schneier, F.R. et al., 1992, Social phobia: comorbidity and morbidity in an epidemiologic sample. Arch Gen Psychiatry, 49:282-288.
- Şahin, C., 2009, "Eğitim Fakültesinde Öğrenim Gören Öğrencilerin Umutsuzluk Düzeyleri", Selçuk Üniversitesi, Ahmet Keleşoğlu Eğitim Fakültesi Dergisi, Sayı:27, ss.271-286.
- Tümerdem, R., 2007, "Dicle Üniversitesi Eğitim Fakültesi ve Fen-Edebiyat Fakültesi Kimya Son Sınıf Öğrencilerinin Kaygılarını Etkileyen Etmenler" Elektronik Sosyal Bilimler Dergisi, ISSN:1304-0278 Bahar-2007 C.6 S.20 (32-45). www.e-sosder.com.
- Üngüren, E., 2007, "Lise ve Üniversitelerde Turizm Eğitimi Alan Öğrencilerin Umutsuzluk ve Kaygı Düzeylerinin Çeşitli Değişkenler Açısından Değerlendirilmesi: Antalya'da Bir Uygulama", Yayınlanmamış Yüksek Lisans Tezi, Akdeniz Üniversitesi Sosyal Bilimleri Enstitüsü, Antalya.
- Zeng H.Z., Leung, R.W., Liu, W., 2008, An examination of competitive anxiety and self-confidence among college varsity athletes, Journal of Physical Education & Recreation, Vol.14 No.2, pp: 6-12.