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*Kazakh National Medical University named after S.D. Asfendiyarov***HEALTH AND FORMING HEALTHY LIFESTYLE AMONG THE STUDENTS OF SPAIN**

Nowadays, considering the health and health care in Kazakhstan we identify the main problems of healthy lifestyle among students. This article focuses on the lifestyle and behavior of students in the European Union, by the example of Spain. The study was conducted among Spanish University Students.

Keywords: *students, academic discipline, alcohol, eating disorders, health, gender, physical activity, Spain, tobacco, university.*

Relevance of the scientific article. Nowadays changes in all people's life spheres inevitably increase: technology development, availability of various resources, social role changes and many other novelties caused human life getting more and more complex. Modern society challenges affect young people as well in one way or another and make some of them choose unhealthy lifestyle (e.g., to smoke, to immoderately use alcohol, to eat unhealthy food and other).

Unhealthy lifestyle in its turn, has negative effect on physiological, psychological wellbeing, blocks the road for seeking improvement, personal growth and optimal functioning (Sari, 2003). It partly encouraged changing the attitude to health.

World health organization characterizes health as a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity (Üstün and Jakob, 2005). The reflection of two important aspects is seen in this definition. First, well-being is emphasized as a health criterion (Strobe, 2000; Ryff, Singer, 2005; Comptom, 2005). Scientific researches started to be oriented not only to illness treatment, but also to health improvement, individual's personal growth, because the attitude has formed in the society, that struggle with illnesses, their treatment is not a sufficient way seeking to help individuals live healthily. Thus, place for prevention has occurred in the care of public health system, which would obligate to accept favourable decisions for health strengthening; prevention's importance to person's health has been perceived (Sari, 2003). Second, from medical attitude to health has been moved to systematic, when not only physical, but psychological and social health aspects become important. Constant growth of bad habits, spread of unbalanced nutrition, hypodynamy and unsafe treatment, non-observance of work and rest regimen, going through stress situations, negatively influence society's (and especially youth's) health (Gaižauskienė, Stankuvienė, Petrauskienė, Kevalas, 2006). Scientists are looking for the most suitable solution to lessen the risk factors, related with lifestyle. Positive psychology supporters pay great attention to person's inner recourses, which could induce to practise healthy lifestyle and could improve subjective evaluation of one's health (Smith, Young, Lee, 2004; Comptom, 2005). One of the inner recourses is considered psychological hardiness (Bartone, Roland, Picano, Williams, 2008). The other authors emphasize, that the influence of hardiness is indirect; it reveals itself through stress regulation, and hard people react more favourably to stressful situations, so reaction caused by stress becomes more favourable to health (Wiebe, McCollum, 1986). Literature analysis showed, that investigating lifestyle peculiarities between sexes, it is difficult to say, who (women or men) live healthier; sometimes scientists tend to value women lifestyle more favourably (that it is healthier than men) (Sari, 2003). Speaking about lifestyle differences related with age, lifestyle is getting better going to senior age stages (Monk et al, 2006; Zakotnik, 2002). Worse health valuation is characteristic to adolescence period, in comparison with senior age periods (Vingilis, Wade and Seeley, 2002), however, all the same, the tendency dominates, that with the age subjective health valuation of both sexes is getting worse. It is obvious, that healthy lifestyle problem remains urgent. Especially important are youth's healthy lifestyle investigations on different aspects.

This article discusses the research, which was organized in Spain.

Study Design and Sample. A transversal descriptive study was carried out including all students registered during the 2009/2010 academic year in the Pontevedra Campus of the University of Vigo (Spain). The 2009/2010 academic year was chosen, as it was the last period before the academic system went through adjustment due to the launch of the 'European Higher Education Area'. The sample size was calculated with a 90% (1 - α) confidence level, of which the accuracy (d) will be 1%, the expected proportion will be 50% and the expected missing data will be 4%. The sample was divided into three groups according to the kind of university degree that the participants were studying (Table 1). Group A was composed of students who were training to become health professionals; Group B included students doing an education-related degree and Group C included those students registered in university degrees related to professional fields which differed from the aforementioned groups. Data collection took place during a regular class of the subject with the highest number of matriculated students for the course and the chosen university degree selected, to minimize losses. An " ad hoc " questionnaire was voluntarily and anonymously self-answered by the students. All participants gave their informed and written consent and received a small gift in appreciation for their time. The study obtained the approval of the university's Students Vice-Chancellery and the government bodies of the involved academic centres. It was also assessed and approved by the Ethics Committee of the University of Vigo.

Table 1 - Sample participation according to gender and academic discipline.

	Total			Women			Men		
	Matriculated	Participants		Matriculated	Participants		Matriculated	Participants	
	N	n	%	N	n	%	N	n	%
Group A	821	288	35.10%	391	158	40.40%	430	130	30.20%
Higher degree in physical education and sport	468	134	28.60%	124	39	31.50%	344	95	27.60%

	Total			Women			Men		
	Matriculated	Participants		Matriculated	Participants		Matriculated	Participants	
	N	n	%	N	n	%	N	n	%
Nursing	171	80	46.80%	147	65	44.20%	24	15	62.50%
Physiotherapy	182	74	40.70%	120	54	45.00%	62	20	32.30%
Group B	1,233	318	25.80%	868	259	29.80%	365	59	16.20%
ChildhoodEducation	496	148	29.80%	418	145	34.70%	78	3	3.80%
PrimaryEducation	341	87	25.50%	266	73	27.40%	75	14	18.70%
PhysicalEducation	201	45	22.40%	67	16	23.90%	134	29	21.60%
MusicalEducation	195	38	19.50%	117	25	21.40%	78	13	16.70%
Group C	1,592	379	23.80%	1,059	247	23.30%	533	132	24.80%
AdvertisingandPublicRelations	464	144	31.00%	355	109	30.70%	109	35	32.10%
FineArts	591	67	11.30%	414	42	10.10%	177	25	14.10%
ManagementandPublicAdministration	160	62	38.80%	88	44	50.00%	72	18	25.00%
Audio-visualCommunication	170	59	34.70%	121	39	32.20%	49	20	40.80%
ForestEngineering	207	47	22.70%	81	13	16.00%	126	34	27.00%
Total	3,646	985	27.00%	2,318	664	28.60%	1,328	321	24.20%

Physical activity level was assessed by means of the Spanish short version of the International Physical Activity Questionnaire (IPAQ) which has shown good reliability ($r = 0.88$) and moderate validity ($\rho = 0.26$) coefficients [1]. Considering the criteria of frequency, intensity and duration, the identified PA levels were classified in: Low (L), Moderate (M) and High (H). Physical activity was defined as “high”, according to current public guidelines recommended for healthy PA [2] and in line with other authors’ findings [3].

The Spanish version of the Eating Attitudes Test (EAT-40) was used to detect disturbances in eating behaviour and attitudes towards nutrition. A cut-off score of 21 was chosen given that it has been observed that the best diagnostic prediction was obtained around this value when screening for eating disorders in university students in a non-clinical setting [4].

Results and Discussion. This study aimed to analyze healthy habits in a Spanish university population, in order to identify students’ behaviour within their gender and chosen academic discipline. As university students, they are considered prospective professionals with important roles in the future. For this reason, their attitudes in terms of health behaviours it is of a heightened importance. It has been found that most of the students did not reach those levels established by the recommendations guidelines for health-enhancing PA (value of 1,500 METS/week) [5]. Although this is in fact in accordance with the general situation observed in Spain and in other countries [6,7]. In some cases, weekly sport practicing among students doing Health Science related degrees barely reached 60% among men and 35% among women [8]. For instance, moderate PA values have been obtained at 65% among physiotherapy students [9], and around 43%–50% among Nursery students [10]. The inactive attitude is especially worrying amongst women, since only 21% of the studied female population, exercised with adequate regularity and intensity. This is half percentage reported by men. Besides, while men who were studying a health-related university degree tended to be more active, PA level among women was similar in all degrees. It seems that there is a positive effect derived from the academic discipline. However, it did not have the same impact amongst males than in females and it seems that the most influenced by this particular variable are males doing health related degrees. However, we cannot establish a direct relationship between health behaviours and academic discipline, since we do not have the specific variable to describe it neither the results are definitive. In this regard, it should be mentioned that this sample follows the same pattern as students from 13 other different European countries, where males had a higher prevalence of physical activity practise, especially students related to health degrees [3]. Nevertheless, comparisons with other investigations are difficult to resolve, due to the different populations chosen as objects of the study, and the various ways of establishing a standardized PA level. Regarding the analysis of eating disorders, our values seemed to be high, 8% for males and 17% for females, a fact which could be accounted for by the use of a cut-off score of 21. However, this cut-off point has been proposed as suitable for the study of Spanish young population [4]. Indeed, national and international studies that had used this very same cut-off point, have found a prevalence of DEA around 20%, similar to our findings. Nevertheless, the values were a bit different for females, in between 7.3–18%, and for males, 0.9–3% [1]. Finally, it is worth mentioning that the males’ values obtained from this sample are above than the normal expected for this gender.

As far as gender differences are concerned, the higher prevalence of unhealthy eating behaviours and attitudes among women is a well-known fact [11,12,13]. Furthermore, no significant differences have been found amongst females according to the academic discipline. Regarding men, those who were studying education-related degrees showed higher prevalence of DEA than the rest of the sample, though this result may be a spurious finding due to the bias caused by the low rate of answers obtained from that group. Yet this difference could derive from the fact that males regard DEA as something typically feminine and alien to their health habits.

Given these findings, we can establish that there is a need of health-promoting interventions to reduce these problems in the university environment, but fundamentally oriented to women. Thus, new tools should be researched for the assessment of DEA in males in order to improve the rate of answered questions and obtain more reliable results.

The present study shows a general high percentage of students who consumed alcohol (77%), especially at weekends and in high doses. No significant differences were found among students from the three different degrees, which is consistent with other studies on adolescents and university students in Spain [14,15]. In terms of binge drinking, and taking into account women's different physiological characteristics, the observed proportion of heavy episodic drinkers was significantly higher among females than in males, 56% vs. 41%. This value could have been influenced by the sample distribution and by the fact that female university students tend to mirror the behaviours of their male peers regarding alcohol consumption [5]. Recent studies have also found higher percentages up to 63% for men and 83% for women in terms of binge drinking among university students [27]. Nonetheless, the lack of consistent criteria to define episodic drinkers [16,17], and the high cut-off point established for Spanish populations, limits the comparison of these findings across studies [18]. The relation between the academic discipline and alcohol use is not clear among university students from the three groups, since no significant differences were observed. Furthermore, a similar level of alcohol consumption was reported in other studies, where the influence of chosen university course seemed to have little or non-influence on their attitude towards alcoholic beverages [7,8,19].

In terms of tobacco consumption, our findings showed a slightly higher prevalence of tobacco use amongst university students, in comparison with other university populations from Spain. The mean value is superior than the results from two studies carried out amongst Medicine students (26.1%) and Physiotherapy and Nursing students (27.3%), in 2009 and 2011, respectively [20,21]. However, worldwide studies have reported a prevalence of smoking amongst university students with a similar range of consumption as we present in this study. In this regard, for male students the rate ranged between 23% and 44% and for females a more varied 9% to 46% [3].

Our results indicate a significant difference amongst students from the three different academic trainings. Thus, the lowest rate of smokers was reported in Group A, which is consistent with a tendency towards quitting tobacco observed in Spanish students doing health-related university degrees [8,22]. However, non-significant differences of tobacco consumption were observed between both genders. This could be interpreted as an indicator of the stage III in the tobacco epidemic, [23] which refers to a break in the habit of men and a global maintenance of the habit among women. It seems to be necessary to intervene this situation through prevention and controlling mechanisms fostered by academic training.

On the other hand, a high prevalence of illegal drugs use has indeed been identified, which is a common habit among university students [24]. The established significant differences, where the highest prevalence of consumption was reported by males and particularly by males from group C, follow previous reports [25]. However, the percentage of women who consumed illegal drugs cannot be considered as low, since a third percent of them appeared to take a drug of some kind. We have to take into account that similar patterns of consumption have been described by other studies, where the most popular drug was cannabis [9,25]. Furthermore, the fact that the lowest percentage of illegal drug use was reported by students from Group A can, to some extent, account for the association between tobacco and cannabis consumption described by several authors [26,27]. Therefore, tobacco consumption could be considered as a gateway for illegal drugs use, especially cannabis. Subsequently, a positive linear regression could be identified between the two variables, but the influence of this correlation in this sample is not clear. Future investigations should continue exploring this correlation and targeting interventions to reduce drugs use in the university setting.

To sum up our findings, it seems that the survey confirms previous reports where the university population show high prevalence of unhealthy habits. In general our students showed a very low level of PA and a high percentage of them could be identified as heavy episodic drinkers. Besides, high levels of tobacco use and illicit drugs were reported. However, students of health-related undergraduate degrees appeared to be more active, smoke less and use illegal substances less frequently. Although different health patterns have been observed between students from the three different groups, a firm association between the academic discipline and the higher or lower prevalence of healthy habits cannot be made due to the cross-sectional design of the study. Furthermore, it is not known if such differences are due to the selected academic discipline alone or due to additional external factors. Our obtained results do however allow us to establish that university education does not provide a sufficient stimulus to encourage a healthy lifestyle amongst its students. Moreover, clear differences have been found regarding the habits of males and females students, which could be accounted for/by gender differences in aspects like dealing with critical life events, stress, and psychological resources, to which females are more sensitive than males [6].

Given all of the above, implementing new actions to promote a healthy lifestyle are required to a significant extent. This can be achieved through programs oriented towards an increased knowledge of the risk and consequences of unhealthy behaviours, but especially by encouraging a change in attitudes towards lifestyles at this pivotal stage in young people's lives. According to our findings, to be able to achieve a successful reduction in the prevalence of unhealthy habits, these strategies must incorporate gender differences, and be campus-wide whilst strongly focusing on faculties and schools themselves.

Conclusions. Physical inactivity, smoking and alcohol consumption are risk factors found to significant extent amongst Spanish university students. This situation seems to be more conspicuous in women. Although there have been clear differences established in terms of lifestyle across academia disciplines, it hasn't been possible to show a firm association between the two variables. The findings of this study clearly state that there is a need to foster gender-sensitive strategies to promote a healthy lifestyle among university students.

REFERENCES

- 1 Craig CL, Marshall AL, Sjostrom M., Bauman AE, Booth ML, Ainsworth BE International physical activity questionnaire: 12-country reliability and validity. *Med.*
- 2 Physical Activity Guidelines Advisory Committee (PAGAC) Physical Activity Guidelines Advisory Committee Report. PAGAC; Washington, DC, USA: 2008.
- 3 Qahoush R., Stotts N., Alawneh MS, Froelicher ES Physical activity in Arab women in Southern California. *Eur. J. Cardiovasc. Nurs.* 2010; 9 :263–271.
- 4 De Irala J., Cano-Prous A., Lahortiga-Ramos F., Gual-García P., Martínez-González MA, Cervera-Enguix S. Validation of the eating attitudes test (EAT) as a screening tool in the general population. *Med.*
- 5 Fogelholm M., Malmberg J., Suni J., Santtila M., Kyröläinen H., Mäntysaari M., Oja P. International physical activity questionnaire: Validity against fitness. *Med. Sci. SportsExerc.* 2006;38:753–760. doi: 10.1249/01.mss.0000194075.16960.20.
- 6 Keating X.D., Guan J., Pinero J.C. A meta-analysis of college student's physical activity behaviors. *J. Am. Coll. Health.* 2005;54:116–125. doi: 10.3200/JACH.54.2.116-126.
- 7 Haase A., Steptoe A., Sallis J.F., Wardle J. Leisure-time physical activity in university students from 23 countries: Associations with health beliefs, risk awareness, and national economic development. *Prev. Med.* 2004;39:182–190. doi: 10.1016/j.ypmed.2004.01.028
- 8 Colares V., Franca C., Gonzalez E. Health-related behavior in a sample of Brazilian college students: Sex differences. *SaúdePúbl.* 2009;25:521–528.
- 9 Bayona I., Navas F.J., Fernández F.J., Mingo T., de la Fuente M., Cacho A. Eating habits in physical therapy students. *Nutr. Hosp.* 2007;22:573–577.
- 10 Irazusta A., Gil S., Ruiz F., Gondra J., Jauregui A., Irazusta J., Gil J. Exercise, physical fitness and dietary habits of first-year female nursing students. *Biol. Res. Nurs.* 2006;7:175–185. doi: 10.1177/1099800405282728.
- 11 Asci F.H., Tuzun M., Koca C. An examination of eating attitudes and physical activity levels of Turkish university students with regard to self-presentational concern. *Eat Behav.* 2006;7:362–367. doi: 10.1016/j.eatbeh.2005.11.011.
- 12 Susan K.-W. Binge drinking and disordered eating in college students. *J. Am. Acad. Nurse Pract.* 2011;2:33–41.
- 13 Abbate-Daga G., Gramaglia C., Malfi G., Pierò A., Fassino S. Eating problems and personality traits. An Italian Pilot Study among 992 high school students. *Eur. Eat Disord. Rev.* 2007;15:471–478. doi: 10.1002/erv.770.
- 14 Cortes M.T., Espejo T.B., Gimenez J.A. Characteristics that define the 'Botellon' phenomenon in university students and adolescents. *Adicciones.* 2007;19:357–372.
- 15 Plant M.A., Plant M.L., Miller P., Gmel G., Kuntsche S. The social consequences of binge drinking: A comparison of young adults in six European countries. *J. Addict. Dis.* 2009;28:294–308. doi: 10.1080/10550880903182978.
- 16 Karam E., Kypri K., Salamoun M. Alcohol use among college students: An International perspective. *Curr. Opin. Psychiatry.* 2007;20:213–221.
- 17 Crego A., Holguin S.R., Parada M., Mota N., Corral M., Cadaveira F. Binge drinking affects attentional and visual working memory processing in young university students. *Alcohol. Clin. Exp. Res.* 2009;33:1870–1879.
- 18 Parada M., Corral M., Caamaño-Isorna F., Mota N., Crego A., Rodríguez Holguín S., Cadaveira F. Definition of adolescent binge drinking. *Adicciones.* 2011;23:53–63
- 19 Palma A., Azeredo R., de Almeida C. Risk behavior and vulnerability among physical education students. *Rev. Bras. Epidemiol.* 2007;10:117–126.
- 20 Pericas J., Gonzalez S., Bennasar M., de Pedro J., Aguilo A., Bauza L. Cognitive dissonance towards the smoking habit among nursing and physiotherapy students at the University of Balearic Islands in Spain. *Int. Nurs. Rev.* 2009;56:95–101. doi: 10.1111/j.1466-7657.2008.00669.x.
- 21 Martín V., Molina A., Fernández D., Fernández T., de Abajo S., Delgado M. Effectiveness of a course on the prevention and control of the smoking habit on its prevalence and incidence among students of health sciences. *J. Adv. Nurs.* 2011;67:747–755. doi: 10.1111/j.1365-2648.2010.05532.x.
- 22 Mas A., Nerin I., Barrueco M., Cordero J., Guillén D., Jiménez-Ruiz C., Sobradillo V. Smoking habits among sixth-year medical students in Spain. *Arch. Bronconeumol.* 2004;40:403–408.
- 23 López A., Collishaw N., Pihl T. A descriptive model of the cigarette epidemic in developed countries. *Tob. Control.* 1994;3:242–247. doi: 10.1136/tc.3.3.242.
- 24 Rimsza M.E., Moses K.S. Substance abuse on the college campus. *Pediatr. Clin. N. Am.* 2005;52:307–319. doi: 10.1016/j.pcl.2004.10.008.
- 25 Webb E., Ashton H., Kelly P., Kamali F. Patterns of alcohol consumption, smoking and illicit drug use in British university students: Interfaculty comparisons. *Drug Alcohol Depend.* 1997;47:145–153. doi: 10.1016/S0376-8716(97)00083-5.
- 26 Leatherdale S.T., Hammond D.G., Kaiserman M., Ahmed R. Marijuana and tobacco use among young adults in Canada: Are they smoking what we think they are smoking? *Cancer Causes Control.* 2007;18:391–397. doi: 10.1007/s10552-006-0103-x.
- 27 Pérez A., Ariza C., Sánchez-Martínez F., Nebot M. Cannabis consumption Initiation among adolescents: A longitudinal study. *Addict. Behav.* 2010;35:129–134. doi: 10.1016/j.addbeh.2009.09.018

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ИСПАНИЯ СТУДЕНТТЕРІНІҢ ДЕНСАУЛЫҒЫ ЖӘНЕ САЛАУАТТЫ ӨМІРСАЛТЫНҚАЛЫПТАСТЫРУ

Түйін: Қазіргі уақытта, Қазақстан Республикасындағы денсаулық және денсаулық сақтаудық арастырғанда біз студенттер арасындағы салауатты өмір салты қалыптастыруының негізгі мәселелеріне нықтай аламыз. Бұл мақала студенттердің өмір салтын және мінез құлықтарын Еуропалық одада Испанияның мысалында қарастырады, зерттеу Испания студенттерінің арасында жасалынды.

Түйінді сөздер: студенттер, академиялық пәндер, алкоголь, рационалсыз тамақтану, денсаулық, жыныс, физикалық белсенділік, Испания, университет, жағымсыз әдеттер.

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ЗДОРОВЬЕ И ФОРМИРОВАНИЕ ЗДОРОВОГО ОБРАЗА ЖИЗНИ У СТУДЕНТОВ ИСПАНИИ

Резюме: В настоящее время, рассматривая здоровье и здравоохранение в Республике Казахстан, мы можем выявить основные проблемы формирования здорового образа жизни среди студентов. Эта статья рассматривает образ жизни и поведение студентов в Европейском Союзе, на примере Испании. Исследование было проведено среди студентов Испании (Ontevedra Campus of the University of Vigo).

Ключевые слова: студенты, академические дисциплины, алкоголь, нерациональное питание, здоровье, пол, физическая активность, Испания, вредные привычки, университет.