



Physical Activities of Female Students of the Matej Bel University During the Menstrual Cycle

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Abstract

This paper presents the results of our research, the main objective of which was to find out the opinions of female university students of bachelor's studies at the Matej Bel University, about the importance of physical activities during the menstrual cycle, mainly in relation to medical problems as the accompanying phenomenon during the menstrual as well as premenstrual phases. The analysis of the student's responses has shown that physical activity has a positive influence on problems of female university students related to menstruation, and that menstruation is rarely the reason for not participating in physical activities.

Keywords: menstrual cycle; physical activities; female university students.

Introduction

Regular and adequate physical activity is one of the simplest ways how to improve and maintain one's good health. It can prevent certain diseases, and at the same time it can help in reducing problems of e.g. cardiovascular character, diabetes, obesity or osteoporosis. By physical activity we understand each movement of our body which leads to energy expenditure (output). Where we are walking up and downstairs, playing, skating, doing housework, or dancing, we are always doing something for our health. In people's lives physical activity should be a lifelong need; the same as it is with food and sleep. Physical activity belongs to a healthy lifestyle because through its physiological and psychological effects it assists in removing mental and physical fatigue (Bendíková, 2009, Hřčka, 2000). Fatigue can be observed in the life of female university students, whose daily routine does not allow enough space for physical activity, which is often insufficient and in some cases even non-existent. This has been demonstrated by the result of researches conducted by Baisová (2009), and Palovičová (2003), in which they point out a long-term decline in interest in sports and physical activities among university students, but mainly the changes in interest and requirements for physical activities of those university students who want to do sports and for who an adequate physical activity has become an inevitable part of their healthy lifestyle.

Problem

In a life of a woman there are days in which the physical activity is limited and sometimes even left out. It is the days of menstruation. According to Matejovičová and Tománková (2009), menstruation is considered a sign of sexual maturity of girls. The authors claim that the average age for the first menstruation (menarché) is before the 13th year of age. Menstruation is a natural part of a reproduction cycle of women, and according to Jančoková (2000) it is one of the many factors which affect the increase in their sports performance. At the same time it often influences women's interest in any kind of activity during the menstrual cycle. The menstrual cycle usually lasts 28 days on average, but it can vary depending on the woman's momentary physical or mental state. In the past, it was the mental state of a woman that was attributed to different problems related to menstruation, in both the menstrual and the premenstrual phases (7-14 days before menstruation), in which a premenstrual syndrome (PMS) occurs in the form of tension, irritability, anxiety, head and backaches, swollen or tender breasts, bloating, and swollen fingers or ankles.

(http://hotelspirit.sk/mineral/index.php?option=com_content&task=view&id=26&Itemid=42). These problems of menstrual cycle are quite frequent and they vary. They originate as a result of anovulation, organic reasons, endocrinopathies, systemic diseases, certain types of medicine, but also the mental state of a woman. They manifest at approximately 30-50% of women and usually come hand in hand with pain in the lower abdomen, which is of different intensity from slight tension to heavy cramps shooting down lower back or even legs. The difficulties start about one day before menstruation and they peak within the first 24 hours of bleeding (<http://www.bezbolestnamenstruacia.zoomshare.com/>).

Luckily, nowadays there are numerous medicaments of modern medicine to help reducing or eliminating the pain. Immediate relief can be assisted by increasing the intake of calcium, magnesium, potassium, and iron, as well as a warm bath or application of hot water bottle to lower abdomen, certain natural plants, but also adjustment of diet and regimen, and physical activity.

Within our research, which is a part of the grant of the Ministry of Education of the Slovak Republic, VEGA No. 1/0757/12, 'The reactive and adaptation indicators of changes of kinetic and psychological abilities of sportspersons related to biorhythms of different length of the period', we have observed the occurrence of medical problems of female university students during the menstrual cycle, and have tried to find out how important the physical activity is during this period of time.

Research objective

The objective of our research was to find out the importance of physical activity as related to medical problems during the menstrual cycle of female students of bachelor's studies at Matej Bel University in Banská Bystrica.

Methodology

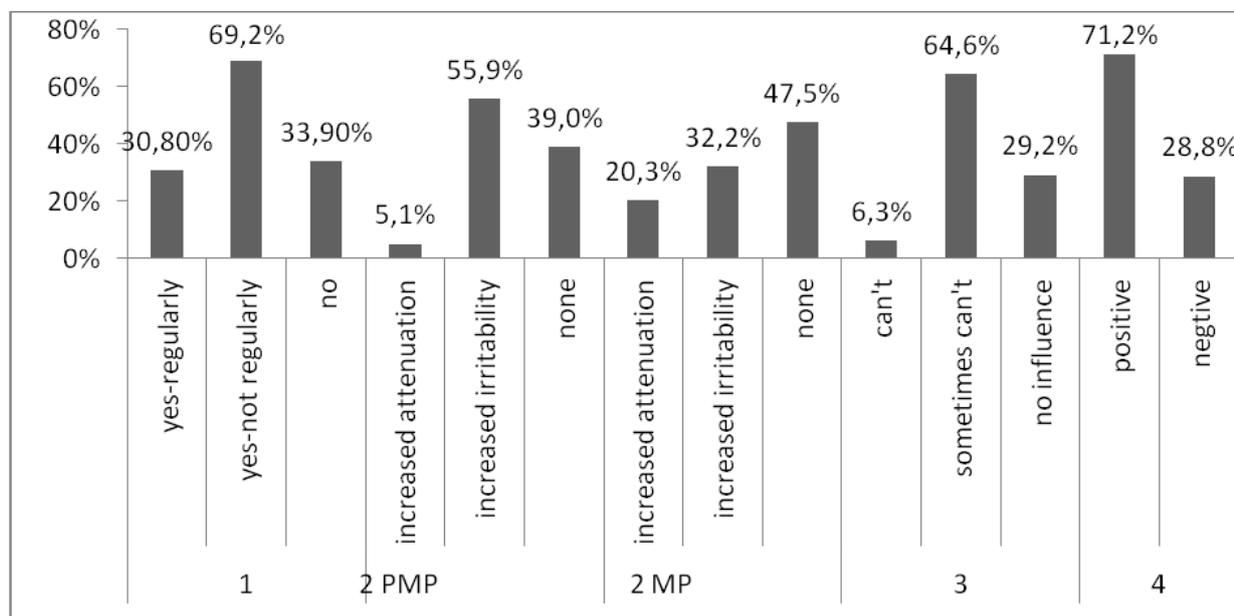
The number of respondents, female students of bachelor's studies at Matej Bel University in Banská Bystrica, was 59, and the average age of our sample was 19.5 ± 1.3 years of age. Our research was conducted within the PE classes in the gym at the Faculty of Economics, Matej Bel University, at the beginning of the winter semester of the 2012/2013 academic year. As the basis for obtaining the empirical data, we had created a survey of ten questions. The obtained results were evaluated by means of logical methods, analysis and synthesis, as well as mathematic and statistical methods, such as the arithmetic mean, and calculating the percentage.

Results of the research

By processing, and evaluating the responses of our respondents, female university students, to the individual questions of the survey (Appendix 1), which was anonymous and reached the 100 % return, (respondents were asked to fill it in during the PE class), we have obtained the information about the basic characteristics of the menstrual cycle, and the data concerning the attitudes of the female students to physical activity during these days, as well as the importance of physical activity in certain health problems occurring during menstruation.

The analysis of the individual responses has led us to the following conclusions: the age of the first menstruation among our respondents was 12.64 years of age, while 79.7 % stated that their menstrual cycle has been regular, and only 20.3 % claimed irregular menstrual cycle. The average length of the menstrual cycle is 29.5 days and the average length of menstruation is 5.5 days. Our respondents were asked if there are any problems that occur during their menstruation; while 66.1 % of respondents answered yes, out of which 30.8 % experience these problems on a regular basis, and 69.2 % irregularly. Only 33.9 % of female university students do not experience any problems. The most common feeling accompanying the menstrual cycle of our respondents is the increased irritability. It occurs mainly during the premenstrual phase, as stated by 55.9% respondents. This has proved the occurrence of the above mentioned PMS, which is connected mainly with hormonal and chemical processes and changes of a woman's body, among our female university students. Unlike the premenstrual phase, most respondents (47.5%) stated not to have experienced any negative feelings during menstruation, which has proved to be essential in their decisions about engaging in physical activities during these days. Only 6.25 % of all respondents claim not to be able to perform any physical activity; 64.6 % can engage in physical activities only sometimes, and 29.2 % have no restrictions. As much as 71.2 % of our respondents think, on basis

of their own experience, that physical activity has positive effects on the occurring menstrual problems, which has proved our hypothesis that physical activity is also important during the days of menstruation. (Graphical illustration of the responses of our survey is shown in Picture 1).



Picture 1: Responses of female university students to survey questions
Legend: PMP – pre-menstrual phase, MP – menstrual phase

Conclusion

Problems of menstrual cycle are an important part of the work of medical specialists and professionals, researchers in the field of natural sciences, but also professionals working in sports. All these groups can benefit from the obtained results, which can help them answer the questions related to the importance of physical activities during the menstrual cycle. Menstruation, which is an inevitable part of life of every woman, puts the mental and the physical resistance of each woman to the test by different means and ways. It is often connected with unpleasant pressure in the lower abdomen; pain accompanied by loss of appetite, throwing up, as well as other menstrual problems. One of the ways how to reduce the risk of the occurrence of these problems is regular physical activity. It is the women themselves who have recently realized the importance of physical activity and its effect on their health, and who engage in physical activities more often. This has been proved by the responses of female university students in our survey, while the majority of respondents realize the positive effects of regular physical activity on various accompanying symptoms of days of menstruation. Thus physical activity becomes an inseparable part of their healthy lifestyle during these days.

References

1. BAISOVÁ, K. Šport a pohyb v hodnotovej orientácii vysokoškolákov Technickej univerzity vo Zvolene. In: Kolektív autorov: *Šport a zdravie v hodnotovej orientácii vysokoškolákov*. Zborník z vedeckej konferencie k 90. výročiu založenia UK a 90. výročiu vzniku Univerziténeho športu na Slovensku. Bratislava: FMFI UK, 2009, s. 40 – 44. ISBN 978-80-223-2706-0
2. BENDÍKOVÁ, E. 2009. Význam využívania športovo-rekreačných aktivít v spôsobe života vysokoškolákov. In: Kolektív autorov: *Šport a zdravie v hodnotovej orientácii vysokoškolákov*. Zborník z vedeckej konferencie k 90. výročiu založenia UK a 90. výročiu vzniku Univerziténeho športu na Slovensku. Bratislava: FMFI UK, 2009, s. 87. ISBN 978-80-223-2706-0
3. HRČKA, J. 2000. *Šport pre všetkých, tvorba športovo-rekreačných programov*. Prešov: ManaCon, 2000. 117 s. ISBN 80-85668-97-1

4. JANČOKOVÁ, L. 2000. *Biorytmy v športe. (S úvodom do chronobiológie)*. FHV UMB, Banská Bystrica. 191 s. ISBN 80-8055-395-5
5. MATEJOVIČOVÁ, B – TOMÁNKOVÁ, K. 2009. Vplyv pohybovej aktivity na vstup dospievajúcich dievčat do menarché. In: Kolektív autorov: *Slovenská antropológia*. Bulletin slovenskej antropologickej spoločnosti pri SAV, roč. 12, č. 1, 2009, s. 20. ISSN 1336-5827
6. PALOVIČOVÁ, J. 2003. Pravidelná pohybová aktivita v dennom režime vysokoškoláčok. In: *Súčasný stav a vývojové trendy vysokoškolskej telesnej výchovy a športu pred vstupom do Európskej únie*. Bratislava. MFF KTVS UK, SAUŠ, 2003 s. 52 – 56. ISBN 80-223-1880-9

Online sources:

Menstruation without pain <http://www.bezbolestnamenstruacia.zoomshare.com/>

Menstruation – how to manage it easily? http://hotelspirit.sk/mineral/index.php?option=com_content&task=view&id=26&Itemid=42