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ORIGINAL RESEARCH

BIO-PERIODICITY AND ITS INFLUENCE ON THE FOOTBALL RESULTS OBTAINED BY THE STUDENT TEAMS DURING THE “UNIVERSITY SPRING” SPORT COMPETITION

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Abstract: Biorhythms represent the biological parameters genetically determined and with the help of which we may define the general constitutional type and also based on which we may establish the elements characteristic to an individualized training, as well as the usage of particular recovery, psychological or other methods. The biorhythm conditions may tie break two sportsmen/ two teams equally valuable. By knowing the negative phases, especially the critical ones, the sportsman may overcome this drawback by adequate physiological training. The problematic of the biorhythms was not yet completely deciphered, so that both under-evaluating and over-evaluating are not beneficent to development, evolution, sportive or of a different nature. The approached problematic

Any alternate unfolding of a phenomenon or process is called rhythm. Our whole Biology is dominated by rhythms, blood stream, breathing, brain activity (the rhythms of the bio-currents sent out by the brain, the sleep-wake inter-change), the liver activity, the activity of the stomach and that of the intestines, the activity of the excretory apparatus, as well as that of the tissues, metabolism, endocrine secretion, blood composition etc. And because we are talking about living matter we do call it biorhythm.

The biorhythm represents an anthropological indicator specific to the human organism. We may place the beginning of the biorhythmic studies during Hipocrate’s time, for he advised his students to mark their “ good”, as well as their “bad” days. H.Swoboda and W. Fliess may be considered as the fathers of the biorhythm theory, due to the fact that they have demonstrated the existence of the physical cycle of 23 days, as well as that of the emotional cycle of 28 days. A.Teltsdar later on proved the existence of the 33 days intellectual cycle. Quite recently, a 4th cycle has been illustrated, this fourth cycle of 38 days being that of the intuition.

Ample studies underline the differences between parameters, function of the ascending or descending period, thus confirming the existence of these biorhythms, of these bio-neuro-physiological fields.

The fortunate or unfortunate correlations ask for some preventing measures. Quite a lot of studies certify the connections in between the biorhythm and the sport performance. Though a skeptic, Professor Dr I.Dragan specifies that from a practical point of view, knowing the biorhythm is quite useful for optimizing the training process, and for the individualized psychological preparation.

The purpose of the study: identifying possible correlations in between the sport efficiency- performance and the biorhythm of the students participating into the football competition.

The study hypothesis: students will show a low level of efficiency during those days when games are planned and this overlaps with a critical day on the biorhythm graphic, this low efficiency being materialized in the final game score.

Subjects: 21 students, 7 for each team from the I, II, III places in the competition finals. The “Panther” team occupied the III rd place. The “Jaguars” occupied II place, while the “Lions” took the 1st place. Each team from the final played a number of 7 games. The methods used: observation, scientific documentation, the method of the Biorhythm calculus, the statistical method, the graphical method.

Table no 1: The table of the biorhythmic phases for CF,CI, CE during the game days of the ”Panthers” team- IIIrd place in competition

Underlining the data : 1) two lost games,

2) a total of 6 critical days during 2 lost games compared to as many during the 5 games won.

Game date – Game result	Cycles	B.M.	R.I	L.R.	R.S.	S.G.	S.M.	A.F	Total no of critical days per team
06.th of April 3-4	C F	100	-40	-14	94	-82	98	-89	3
	C I	-87	-76	X	-62	10	-97	-37	
	C E	-78	78	-100	43	X	X	-62	
09. th of April 8-2	C F	40	-94	-78	40	-98	82	-27	-
	C I	-99	-100	54	-95	-46	-69	19	
	C E	-97	100	-78	90	-62	-62	-97	
10. . th of April 9-2	C F	39	-100	-94	X	-89	63	X	2
	C I	-100	-100	69	-99	-62	-54	37	
	C E	-100	97	-62	99	-78	-78	-100	
27.. th of April 7-2	C F	89	X	40	100	-40	73	-100	2
	C I	99	95	-76	100	69	46	-46	
	C E	78	-43	X	-90	100	100	78	
28.. th of April 7-3	C F	98	-14	14	95	-63	89	-98	-
	C I	87	87	-87	95	81	28	-62	
	C E	62	-42	-22	-62	97	97	62	
30. . th of April 2-4	C F	94	-63	-40	82	-94	100	-73	3
	C I	76	76	-100	87	97	X	-87	
	C E	22	X	-62	-43	91	78	X	
14 th of May 6-1	C F	-52	98	98	-27	94	-73	X	2
	C I	-97	-97	91	-100	-76	-37	54	
	C E	-22	X	78	43	-78	-78	-22	

The work methodology:

At the ends of the competition, the 21 students, participants or having won the I, II and III places, have been asked to bring their identity cards, in order to have their birth dates written down. Based on these birth dates, and following the usual procedure, they have calculated the biorhythm of each student for the period of the competition, extracting the situation of the critical days and that of the positive or negative curves registered during the days when matches were scheduled. Tables 1,2 and 3 will present the situation of the biorhythm of each student over the three cycles: the physical cycle (C F), the intellectual Cycle (C I) and the emotional cycle (C E) for the dates when games were scheduled.

Table no2: The table of the biorhythmic phases for CF,CI, CE during the game days of the ”Jaguars” team- IInd place in competition

Game date – Game result	Cycles	O. C.	F. R.	B. A.	M. C.	D. C.	D. M.	P. C.	Total no of critical days per team
06 th of April 5-1	C F	X	27	100	X	-52	27	73	2
	C I	28	62	28	-87	62	91	19	
	C E	62	-22	-90	62	90	100	-62	
09 th of April 0-3	C F	73	90	63	73	27	89	100	3
	C I	-28	X	-28	100	X	99	69	
	C E	X	43	-97	97	43	78	-97	
10 th of April 3-0	C F	89	98	40	89	52	99	94	2
	C I	-46	X	-46	-97	X	95	81	
	C E	-22	62	-90	100	22	62	-100	
22 nd of April 3-0	C F	-94	-100	-27	-94	-62	-100	-89	1
	C I	-37	-69	-37	81	-69	-87	X	
	C E	-22	-22	100	-90	-62	-80	90	

23 rd of April 8-0	CF	-100	-98	X	-100	-82	-99	-73	2
	CI	-19	-54	-19	97	-54	-95	-28	
	CE	X	-43	97	-97	-43	-78	97	
05 th of May 6-2	CF	94	94	-14	100	89	94	40	1
	CI	87	99	87	-28	99	37	-54	
	CE	43	X	-97	78	78	97	-78	
14 th of May 2-5	CF	-94	-94	-51	-82	-40	-94	-98	0
	CI	-76	-28	-62	-91	-28	87	91	
	CE	-100	90	22	20	-90	-62	-22	

Underlining data : 1) Two lost games

2) a total of 3 critical days in 2 lost matches versus 8 days in the 5 won games. It is to be mentioned that the last lost game was the one for disputing the first place, which was lost to a team clearly superior and much more homogeneous from this point of view.

Table no 3: The table of the biorhythmic phases for CF,CI, CE during the game days of the "Lions" team- Ist place in competition

Game date – Game result	Cycles	B. I.	D. C	I. D.	B. R.	C. C.	L. I.	P. R.	Total no of critical days per team
09.th of April 4-3	CF	90	-90	-78	-50	-90	20	-100	-
	CI	-37	-70	-45	20	-48	-75	-52	
	CE	-100	-90	-70	-48	98	-75	47	
13. rd of April 2-3	CF	82	-27	X	50	-73	-82	-51	4
	CI	-87	X	-95	81	-95	-10	20	
	CE	-43	-43	X	-97	78	X	-43	
14. th of April 8-3	CF	63	X	27	75	-50	-94	-27	1
	CI	-95	19	-99	91	-100	-97	37	
	CE	-43	-22	22	-100	62	22	-62	
22. nd of April 1-3	CF	-27	-63	-63	-94	X	100	X	4
	CI	54	46	69	-46	69	91	28	
	CE	62	43	X	97	-75	X	43	
29. th of April 6-2	CF	27	-82	-94	-89	-40	80	-63	2
	CI	81	10	91	-85	91	100	X	
	CE	27	X	-43	90	-43	-45	63	
30. th of April 4-2	CF	50	-94	-100	-89	-63	63	-	2
	CI	91	X	97	-87	97	99	-	
	CE	X	-22	-62	87	-22	-62	-	
14.th of May 5-2	CF	-94	94	82	40	98	X	-	2
	CI	-62	-37	-76	54	-76	-95	-	
	CE	X	22	62	-90	22	62	-	

Underlining data: 1) two lost games

2) a total of 8 critical days during the 2 lost compared to the 7 critical days during the 5 won matches. It is to be noticed that Student PR suffered a pull on the 29th of April, which did not allow him to play in the last two games.

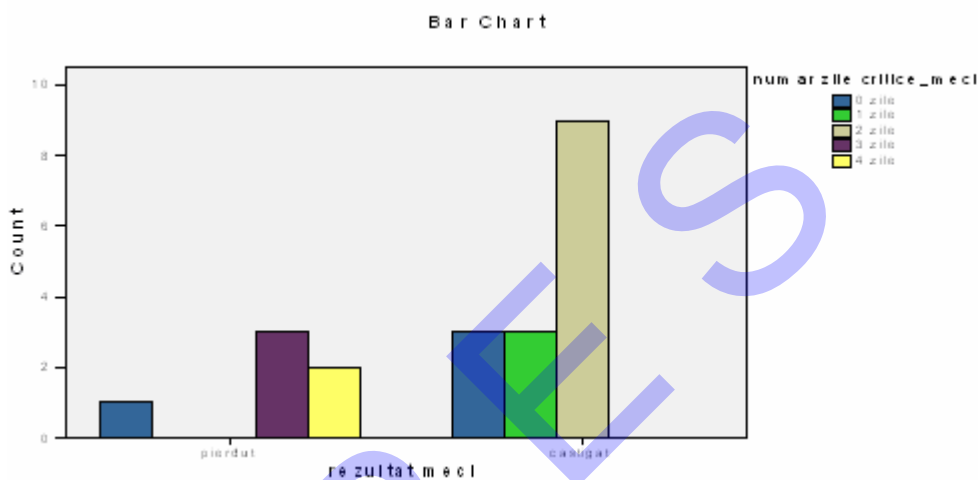
Interpretation of results: Results were obtained by the help of the SPSS, a program of electronically elaborating social data.

By following the connection between the number of days and the results obtained during games, operation done by appealing to the correlation test for non/numeric data (Chi/square = 17,325, d.f. =4, p=0,002), we have obtained a statistically significant correlation (chi/square), which is illustrated in the near table and graphic.

Table no 4: The situation of the critical days and games results.

		Number of critical days / game					Total
		0 days	1 days	2 days	3 days	4 days	
result of the	Lost game	1	0	0	3	2	6
	Won game	3	3	9	0	0	15
Total		4	3	9	3	2	21

Graphic no 1. The situation of the critical days and game results



Conclusions:

1. By correctly interpreting the graphic of the biorhythmic phases of the physical, intellectual and emotional cycle, we may establish the team strategy, so as to have the team efficiency raise to a maximum through sportsmen implication and yield.

2. By calculating the compatibility percentage in between the student team members, we may put together a titular team from one game to another, with the purpose of obtaining the best results.

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