

CHRONOBIOLOGY IN THE LIFE OF MILITARY STUDENTS

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Abstract: Purpose: In the present work we aim to expose notions regarding biorhythm and to evaluate certain implications of it in the life of military students that belong to different types of military forces.

Introduction: Based on the idea that biorhythm is the subject of study for chronobiology, a field of biology that has been recently studied, hereof one of the patriarchs of the said field, Prof. Alain Reinberg, from the Chronobiology Unit of the A. Rockefeller Foundation in Paris, states that it represents "the study of temporal organization of living beings and its alterations." **Method:** Thus, the method chosen by us is the statistical study based on applying the questionnaire on a representative control group (250 persons).

Results: It will reflect the influence of intrinsic and extrinsic factors on the daily activities of the body. In conclusion, chronobiology influences the schedule, and the latter, in return, influences collective and individual activities. **Conclusions:** Therefore, the importance given to chronobiology grows by the day and can be materialized by setting up schedules, but, unfortunately, it is insufficiently exploited in areas of activity in which it is required.

Key words: military students, chronobiology, temporal organization

INTRODUCTION

The ancient Chinese scholars knew schedule bodies, which was the foundation of what we now call chronobiology. We can say, therefore, that the body sends you all the energy in its various forms, to parts of it at a time nictemeral cycle. [1] The existence of living organisms to a genetic biological clock has resulted in the awarding of the Nobel Prize for Medicine ago Erich Wischaus only 19 researchers, Edward Lewis and Christiane Nüsslein - Volhard, the latter being one of the 12 women who won the grand prize . In the present study we aimed to demonstrate the importance of knowing and also in the life of every student applicability cronobiologiei military because it is scientifically proven that those who do not comply and repeatedly disturb inner rhythm gets sick more often and with greater ease, and sometimes very serious disease that can not be cured, due to wear organs.

-tabulation and interpretation of data obtained from the questionnaire to students belonging to 5 units higher military education

-support the existence of a multitude of phenomena taking place in the body permanently succession day - night (nictemeral cycle)

-argument interrelation biorhythm - body

- given that following the success of military trials require extra strength, versatility and performance.

RESULTS

After analyzing the data obtained by the questionnaire containing 10 items, clear differences emerged on the slots and actions under them so proving permanent body conditioning by processes taking place both in the home and in the external. The questionnaire was sent sample of 250 people.

QUESTIONNAIRE

Hi There! I ask you to answer the following questions by writing an "X" in the appropriate box selected response and we would like to identify added:

Age:

Sex:

Year of study:

Specialization / Branch:

University / Academy:

1. Have you ever given your daily biorhythm importance?

- Yes
- No
- I do not know
- Not interested

2. How would you describe your general wellbeing at an interval of 30 minutes after awakening?

- Very tired
- tired
- rested
- energetic

3. In what time frame you consider that you have the maximum capacity of concentration?

- 08⁰⁰-10⁰⁰
- 10⁰⁰-12⁰⁰
- 12⁰⁰-14⁰⁰
- 14⁰⁰-16⁰⁰

4. Which of the followings we consider to be optimal for performing military firing?

- 13⁰⁰-14⁰⁰
- 14⁰⁰-15⁰⁰
- 15⁰⁰-16⁰⁰
- 16⁰⁰-17⁰⁰

5. Sporting activities you prefer 16⁰⁰-18⁰⁰ range? (desired response independent of the schedule)

- Yes
- No
- I do not know
- Not interested

If "Yes", why?

If "No", why?

6. In which of the following intervals during sleep the night you fall on?

- Less than 7 hours
- 7-8 hours
- 9:00
- More than 9:00

7. Are you satisfied with how biological rhythms are observed in arranging daily program schedule?

- Yes
- No
- I do not know
- Not interested

8. You think the ambient temperature influence your psychomotor ability?

- I see no influence
- They are more active (a) at low temperatures
- Are less active (a) at low temperatures
- The same capacity
- They are more active (a) at high temperatures
- Are less active (a) at high temperatures

9. Within one month you felt (more than 5 days) states of irritability, nervousness / calm optimism?

- Yes
- No
- I do not know
- Not interested

If "Yes", what occasion?

10. Considers that biorhythm had any importance in choosing your future military career?

- Yes
- No

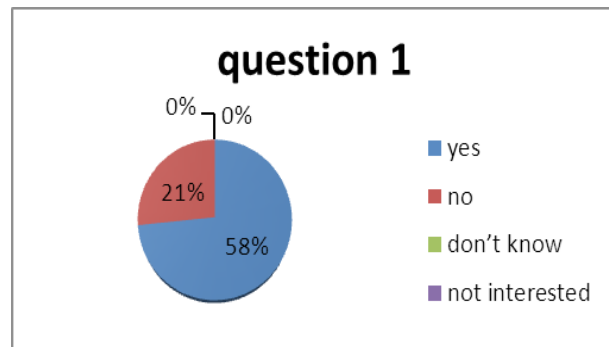
- I do not know
- Not interested

If "Yes", why and when?

If "No", why?

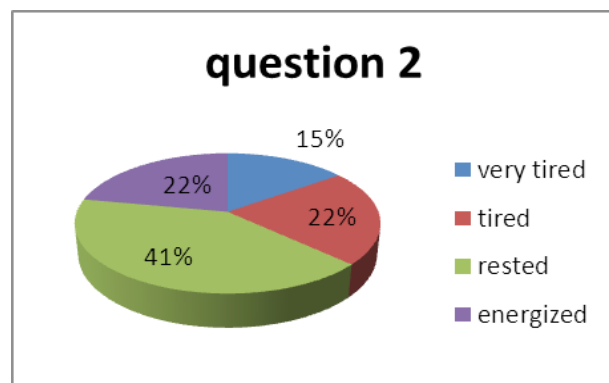
Thanks for your time and we are committed to you communicate study results which have contributed to the achievement of expressing personal opinion!

1. Have you ever given your daily biorhythm importance?



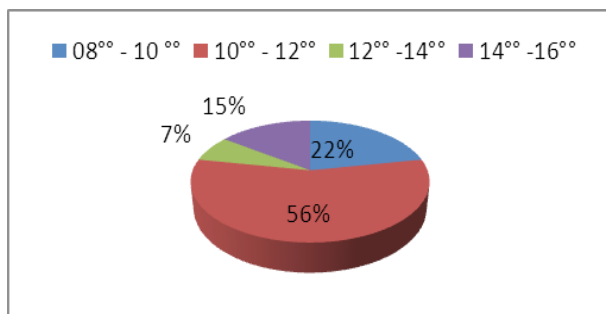
Given the fact that over half of the respondents answered "Yes" to this question, we can say that the concept of biorhythm is becoming increasingly aware, notably the percentage achieving variant 0% answered "I do not care" which shows concern for the wellbeing of the body. However, an equal number of people opting for alternatives "No" or "Not interested", which certifies the relatively recent emergence cronobiologiei science biorhythms. [4]

2. How would you describe your general wellbeing at an interval of 30 minutes after awakening?



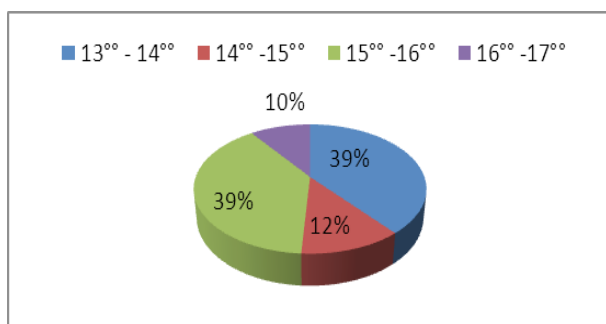
Most of their general condition characterized military students at an interval of 30 minutes after awakening as an ideal, choosing the answer "rest" but there is also negligible percentage on options "energy" and "tired". Only 15% felt tired during this time. Scientific, in the morning appears the stress hormone, cortisol, which causes various organs tone recovery and return to normal circulation, its secretion is diminished around "Lx 23". [2]

3. In what time frame you consider that you have the maximum capacity of concentration?



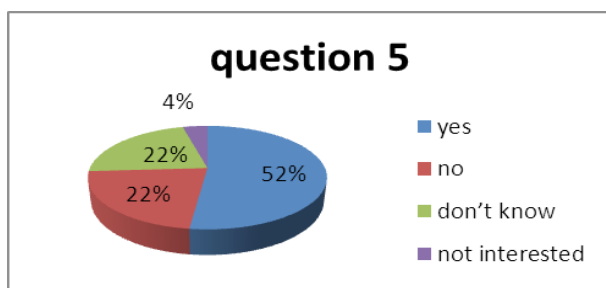
It justified the choice in 56% of the schedule "10^{oo} - 12^{oo}" as is "time scholar", the brain is most receptive and ability to make decisions and solve problems as maximum. Now is the ideal time you travel by car, attention and reflexes are much greater. [2]

4. Which of the followings we consider to be optimal for performing military firing?



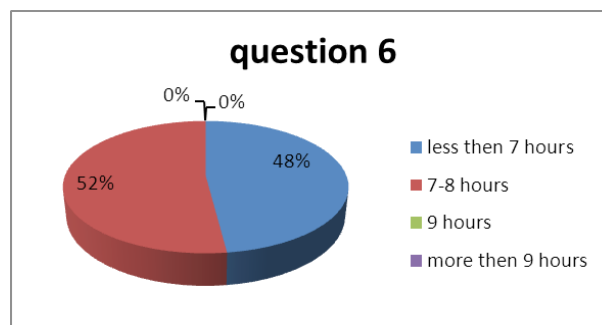
To perform military firing in the questionnaire, students opting for slots "13^{oo} - 14^{oo}" and "15^{oo} - 16^{oo}", but for intervals less than "14^{oo} - 15^{oo}" (12%) and "16^{oo} - 17^{oo}" (10%). The best skill was recorded by researchers between the hours "15^{oo} - 16^{oo}" time "Lx 15" showing also the lowest threshold of pain sensitivity. [4] Moreover, within the same range brains again put in motion, and we can continue the work force as attention and concentration are again in top form. [3]

5. Sporting activities you prefer 16^{oo}-18^{oo} range? (desired response independent of the schedule)



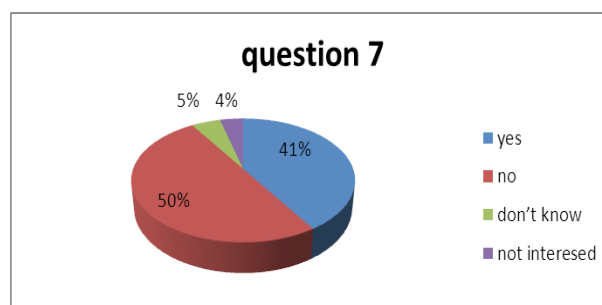
Obviously, most military students (52%) believe the time we suggested as suitable for sport activities. This is supported by the physiology of the human body which is now revived, being willing to come into operation due to the large opening of the lungs and airways.

At "17^{oo}" hands feel the need to move at the same time recorded most sports records. [1] 6. In which of the following intervals during sleep the night you fall on?

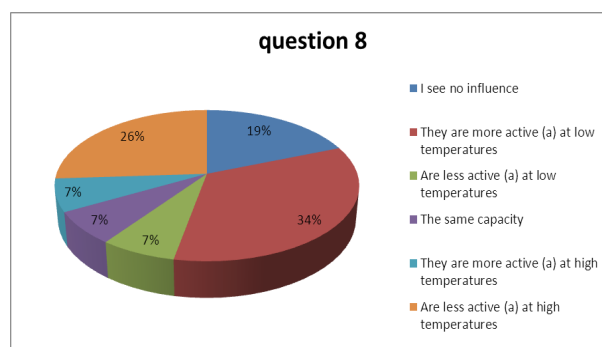


Statistically, sleep duration is associated with 7- 8:00 greatest longevity and very little sleep duration leads to malfunctions such as angina and heart pain. Myocardial infarctions and strokes correspond to a very long sleep durations. Therefore, we consider the responses of students surveyed (52% - "7- 8:00") conducive to maintaining a state of equilibrium of body integrity. [3]

7. Are you satisfied with how biological rhythms are observed in arranging daily program schedule?



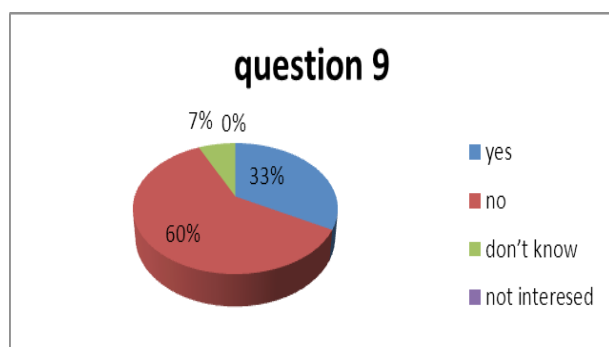
Students military in 50% are dissatisfied with regard to compliance with the biological rhythm in arranging daily program schedule is understandable because military status requires at the outset a more intense training both physical and mental. However, 41% of them show good adaptability and therefore chose the answer "Yes". Because there are answers "do not know" (5%) and "Not interested" (4%), denotes the idea that the military did not address arranging daily program schedule from this point of view. [3].



8. You think the ambient temperature influence your psychomotor ability?

From scientifically proved that alternation body temperature affects psychomotor ability, in the sense that, as the temperature is high, the body is more active. However, in our study, as applied questionnaire, most of the military students (34%) say they are more active at low temperatures, and 26% say they are less active at high temperatures. In descending order, 19% are not aware influences, and the fewest in equal proportions (7%) are less active at low temperatures or high temperatures are more active or deemed to have the same ability to work, both physically, and mentally. [2]

9. Within one month you felt (more than 5 days) states of irritability, nervousness / calm optimism?



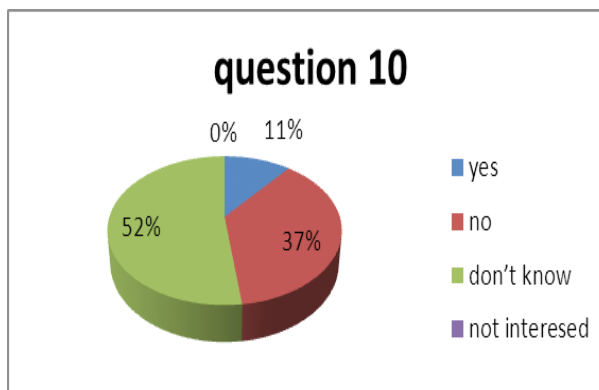
We chose to introduce this question in our questionnaire to highlight the existence of psychophysical cycles. In its detriment, we note the presence of 4 cycles: the physical cycle, the cycle of emotional and intellectual cycles and Intuition.

Physical cycle lasts only 23 days: 11, 5 days of intense work force and capacity, followed by 11, 5 days of fatigue and weakness. Emotional cycle includes 14 days of calm and optimism and nervousness and irritability dominated 14 days.

Intellectual cycle consists of 16, 5 days increased capacity creation, spontaneity and 16, 5-day low yield of intellectual activity. The most recently discovered is intuitional cycle, called "sixth sense" for a period of 38 days. In a psycho-physical cycle, the most sensitive is the transition from one stage to another, when the body shows a maximum degree of instability. It was found statistically as in people over 70 years, most deaths occurring during that period or immediately thereafter.

In this study, 60% of students surveyed answered "No" and 33% "yes" and 7% with "do not know". It follows that, for the most part, we are unaware of the passage from one stage to the next cycle. [3]

10. Considers that biorhythm had any importance in choosing your future military career?



The fact that we have a percentage of 52% of variant answered "do not know" denotes that the concept of biorhythm is circulated recently, but not enough depth in all categories of education and in all age groups. Thus, this response is justified because of uncertainty about the science and its implications. However, we obtained and answers "yes" (11%) and "No" (37%), with the result that a certain part of the population surveyed meet this deadline, but were not influenced by the biorhythm or when choosing future military career.

CONCLUSIONS

This study achieved its objectives and thus can conclude the following:

- In student life there are minimum and maximum military activities undertaken by them in relation to certain times of day or month
- There was tested also exogenous origin of biorhythms assumption that they are subject to environmental factors
- Regardless of the higher military educational institution, every student of this is influenced by the "biological clock", variations in yield from one period to another

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