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# STUDY CONCERNING THE INFORMING OF THE YOUNG POPULATION CONCERNING THE MOTOR ACT, BLOOD GROUP AND THEIR IMPORTANCE FOR LIFE

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#### Abstract

Aim. The present research aims to bring forward an issue much discussed, but little approached in practice, concerning the importance of the motor act, blood groups and the level of awareness of young people about their importance for life, and how not knowing one of these factors may become a negative phenomenon with a permanent impact, even catastrophic we could say, in a vital issue, where seconds count in saving a life.

*Purpose of Study:* The research was undertaken during the Physical Education and Sport lessons, on a group of 390 students (boys and girls) I and II years of study, enrolled in the Petroleum-Gas University of Ploieşti.

Research Methods and techniques. The research methods and techniques used to address the purpose and research objectives are: The bibliographic method – provides information regarding the approached subject, and reference literature; the observation method – direct investigation; the statistical-mathematical method; the graphical method; the experimental method.

*Findings*. This research was based on the hypothesis according to which most teenagers do not give importance to blood groups, because they did not have the necessary amount of information concerning their importance in saving a life, in case of accidents or in unexpected situations.

Conclusions. Information on indicators related to health problems and life can offer young people the chance to understand the importance of knowing blood groups, when they participate in organising motor acts (Physical Education class) and to prevent any problems or delays in case of an accident or unforeseen events, when time is a decisive factor in saving lives.

Key words: motor act, students, blood group, accidents, Physical Education, life.

## Introduction

"Blood groups are fundamental as creation itself ... they are our ancestors signature on the indestructible path of history" (Peter & Whitner ., p. XIV) and have a "feature inherited from our parents, which determines compatibility with others, in case of a blood transfusion.

Establishing it is very important, in order to know, in case of serious illnesses or accidents, what is the blood group that the affected person needs." (health.hause.ro> Health > Diseases, 2009, p.1), and for this reason we believe that no scientific approach is solitary, but always accompanied by information, data, coming from the same science, and also by collateral sciences



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that intersect, intertwine or complement each other harmoniously, in order to form a whole scientifically argued.

The present research aims to emphasize an issue much debated, but little approached in practice, regarding the importance of knowing blood groups. We will also discuss about weaving this knowledge into the motor act, action and activity, conducted during Physical Education lessons, where learning through motion, and informing the public about their health status or possible dangers, are common-sense activities, which target the immediate care, information and prevention attributes of the teacher.

It is widely acknowledged that this is a fair option "which can be made only based on our individual genetic codes" (Dr. Peter. & Whitne., p. XIV), due to the fact that "blood it self is life, is the primordial force fuelling the power and mystery of birth ... blood is alchemy" (Peter & Whitner C., p. 3).

Based on blood groups, scientists were able to draw a migration map of our ancestors, discovering how they adapted to geographic, climacteric, and social changes; in other words, blood groups are "... a continuous cord that binds us one to another" (Peter . & Whitner , p. 4)

#### **Hypothesis**

This research started from the hypothesis according to which most teenagers do not know their blood group, because they did not have the necessary amount of information concerning their importance, and because they were unaware that this piece of information may become a decisive factor in saving a life, in case of accidents or in unexpected situations. Given the situation where they could be informed, we believe that their mentality and attitude would change, encouraging them to access research laboratories, specialised in providing information about blood groups.

### Methods

## 3.1. Subjects

This research was undertaken during the Physical Education and Sport lessons, on a group of 390 students (boys and girls) I and II years of study, enrolled in the Petroleum-Gas University of Ploiesti.

#### 3.2. Research methods

- Bibliographic study method;
- Observation method;
- Investigation method (conversation, enquiry, questionnaire, etc.);
- Statistical-mathematical method;
- Graphical method.

#### 3.3. Research purpose

The research purpose was to emphasize a lack in the youth education regarding an important, decisive for life but little publicised factor – knowledge of blood groups.

As long as students are required to bring a medical certificate in order to prove that they are able to sustain physical effort, in the same extend, they should make proof of blood group, as a protective measure. Therefore we believe it is a duty and an imperative act, especially for members of the didactic staff, who are specialised in Physical Education, to focus on sharing information regarding blood groups among all participants in Physical Education lessons, and on presenting this piece of information as a vital factor in saving lives.

#### Research content

Taking into account all these aspects, we started our investigation, under the form of a questionnaire, concerning the awareness of each young individual taking part in Physical Education lessons, the level of awareness about blood groups, their importance for life and how ignorance can be a negative phenomenon with an ultimate impact, disastrous we may say, for a vital matter, "where seconds count" in saving a life.

**Result.** In order to sustain our statement, we chose randomly students from 15 groups, meaning a number of 390 subjects, who answered a questionnaire implemented by us, composed of 12 items with closed answers (yes, no), according to questions recorded in Table 1, entitled *Identifying the awareness of each young individual regarding blood groups and their importance for saving a life.* 

**Table 1** Observation protocol concerning the identification of the awareness of each young individual regarding blood groups and their importance for saving a life

Items from the questionnaire implemented with the purpose of identifying the awareness of each individual.		Number of responding students Result in number of students and percentage before (I.T.) and after information (F.T.)								
		%	I.T. No	%	F.T. Yes	%	F.T. No	%		
1. Do you know your blood group?	66	16.93%	324	83.07%	240	61.53%	150	38.47%		
2. Do you know how many blood groups exist?	74	18.97%	316	81.03%	230	58.97%	160	41.03%		
3. Were you given precise information about	76	19.49%	314	80.51%	320	82.05%	70	17.95%		



blood groups in high-school/university?

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blood groups in high-school/university?								
4. Were you informed, during your school activity, about the importance of knowing blood groups, and how this information may save lives?	82	21.02%	308	78.98%	320	82.05%	70	17.95%
5. Did you know that not all blood groups are compatible for transfusion?	66	16.93%	324	83.07%	318	81.53%	72	18.47
6. Blood groups are involved in the determination of personality. Did you know that?	66	16.93%	324	83.07%	240	61.53%	150	38.47%
7. Are you informed that you can donate blood to save a life?	75	19.23%	315	80.77%	327	83.84%	63	16.16%
8. Do you think it would be important to go to a blood collection centre to find out what blood group you have?	240	61.53%	150	38.47%	340	87.17%	50	12.83%
9. Did you know that for finding a group of blood scientists need a period of time?	66	16.93%	324	83.07%	249	63.85%	141	36.15%
10. Have you ever thought that the time required for a laboratory to determine your blood group could be fatal, if your life is in danger?	66	16.93%	324	83.07%	240	61.53%	150	38.47%
11. Knowing all the aspects described above in the questionnaire, do you consider important that we should all know our blood	79	20.26%	311	79.74%	240	61.53%	150	38.47%
group? 12. Do you know your blood group? Total answers in %	66 A tota	16.93% al of = 390 s	324 students	83.07% s answered	240 this que	61.53% estionnaire.	150	38.47%

#### **Discuss**

At the initial test (I.T.), after the implementation of the questionnaire, we concluded that a number of only 66 students, from the total of 390 questioned, knew their blood group, meaning a proportion of 16.93%, while the rest of 324 students, a proportion of 83.07%, did not even hear of the subject. This aspect brings us very close to the research hypothesis, according to which many individuals belonging to the young population do not know their blood group because they have no information on the importance of this piece of information, and on the implications it may bring (accidents, etc.).

In the teaching process, after this event, we considered that it would be efficient to use the formative-informative character of the Physical Education lesson, at which we added a factor with positive emotional impact, namely our approach to students through the nature of the discipline, and we started a campaign of information for the discussed phenomenon.

After the initial test (I.T.), observing the lack of information mentioned above, we started to share systematically in each lesson over the entire semester, based on the questionnaire implemented, and identically for all subjects, themed data regarding:

- the history of blood groups;
- the typology of blood groups;
- the importance of knowing blood groups for saving lives in case of accidents;

- blood transfusions;
- the necessary time for determining a blood group in laboratory analyses;
- the spread of blood groups in Romania;
- the link of blood groups and Physical Education, etc.

Questions number 1, 5, 6, 10, and 12 were "trick" questions, having the purpose of verifying the truth from each statement in the questionnaire. Hence, a logical string of questions followed, repeated under another form, in order to verify the students' statements.

Through the percentage recorded by the chosen subjects, they gave proof of sincere answers for the items from the questionnaire, due to the fact that the later report was significantly close or equal to the one registered for each item (see Table 1).

At the final test (F.T.) we observed changes of attitude, demonstrated by the answers recorded in parallel in Table 1, and presented in Graph 1 and 2.

This analysis was undertaken with the purpose of emphasizing the differences interfered, as a result of the occurrence and identification of each individual's awareness, regarding the importance of knowing blood groups in a situation when seconds count in saving a life. For this reason, informing them about the importance of knowing blood groups is a vital matter. For our research, we started from the hypothesis according to which, within operational projects (and



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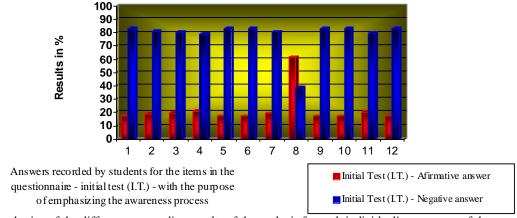
here we refer to a didactic scenario), we would anticipate and prepare messages referring to these aspects, having as a result, in our opinion, a positive modification for the students' capacity of receiving with a visible increase in efficiency fact that represents a gain both for society, and for us – authors.

This aspect proven by us through this article, namely through the modification of percentages, regarding people interested about their physical status, represents a positive signal. If for the initial test (I.T.) we only recorded 66 students who knew about their blood group, after the information campaign, promoted all along a university year cycle, during Physical Education lessons, we could observe a positive effect. After the final test (F.T.), the number of subjects who knew their blood group rose to 240 students (61.53%) from the total. The same proportional increase was recorded for items number 9, 10, 11, and 12, these

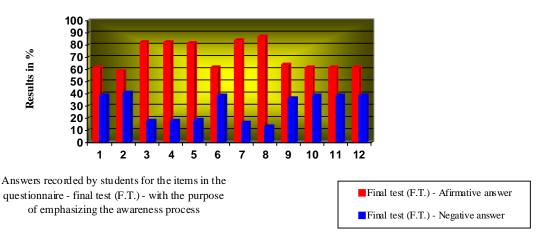
being items which verify the truth from each statement from the questionnaire, and prove the modification of the subjects' awareness.

Thus, we confirm the research hypothesis, according to which many individuals belonging to the young population do not know their blood group because they have no information on the importance of this piece of information, as a decisive factor in saving a life, being useful in unpredicted situations, or in case of accidents, this being a leak of the educational system, which should be repaired starting, probably, with parents.

As a consequence of the continuous process of making this subject public, the students' mentality and attitude changed, and they became encouraged to access research laboratories, specialised in providing information about blood groups, fact which may be verified, after the final test (F.T.), from the percentage increase, recorded in Table 1, and in Graphs 1 and 2.



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**Graph 2** - Emphasize of the differences regarding results for each individual's awareness of the importance for knowing blood groups - parallel presentation for (F.T.)



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It is important to mention that Graphs 1 and 2 represent both positive (YES) and negative (NO) answers, marked for the corresponding items from the implemented questionnaire, namely items 1-12 from the two graphs. We would also want to emphasize that we discovered another interesting subject in our research, regarding the spread of blood groups, after their frequency of repartition. We observed that, for the researched group of students, during Physical

Education lessons, that only 66 of 390 subjects knew what blood group they had, at the initial test, meaning a proportion of 16.93%. After the final test, we recorded a percentage of 61.53%, namely 240 individuals – 75 of them had blood group 0 (31.25 %), 80 subjects had blood group A (33.3 %), 35 had blood group B (14.59 %), and the rest of 50 subjects had blood group ABIV (20.82 %), according to the data from Table 2.

**Table 2** Repartition on blood groups of the studied individuals and a comparative presentation with the repartition amongst the Romanian population

Blood groups									
Blood group	0		A		В		AB		
Studied individuals/240 students	No. of people 75	% recorded 31.25 %	No. of people 80	% recorded 33.3 %	No. of people 35	% recorded 14.59 %	No. of people 50	% recorded 20.82 %	
Romanian population in %	33%		43%		16%		8%		
Differences of % for the two types of population	1.75%		9.7%		1.41%		12.82		

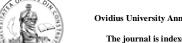
If we were to compare our findings with the data recorded in the article Repartition on blood groups of the Romanian population (www.health.com/de.../distribution-the-blood-group-inromania.), we would observe that the reports with the proportion of a blood group are different, that a modification occurred for proportions related to the spread of some blood groups. The percentage report for the studied group having 0 and A blood groups, have a proportional spread close to the one described both on Wikipedia and on the quoted online page mentioned above, "the ABIV blood group has an increasing rate of proportions with almost 12.82% higher, as compared to the existent data. Is there a modification at the genetic level for the young population?! Is there an adaptive preparation for a new generation?! These are highly debated questions, left to be answered by specialists."

As we inherit the eye colour from our parents, in the same extend we inherit our blood group from them, but if there are changes in our genetic code that is a dilemma that only geneticists can solve. We are just pulling an alarm signal for what happens to the young generation regarding their blood groups and the absence of the latter from the personal file of patients. Information on indicators related to both life and health problems, such as blood groups, can offer young people the chance to overcome any problems or delays

in case of accidents or unforeseen events, when seconds count in saving a life.

## Conclusions

- Blood groups represent a feature inherited from our parents, which determines compatibility with others, in case of a blood transfusion, and the Physical Education lesson could be a launching pad for the transmission of information concerning this subject to students:
- Presenting this piece of information, regarding blood groups, is a vital factor in saving lives.
- Many individuals belonging to the young population do not know their blood group because they have no information on the importance of this piece of information, and on the implications it may bring in case of accidents or unpredicted situations, this being the reason for which we had, for the initial test, a number of only 66 students who knew their blood group;
- A systematic use of the first and last part of the lesson with the purpose of informing students was a method of raising awareness of the young population, with a positive influence in modifying their mentality about the lesson, but also represented a manner of



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- education for health, in parallel with a raise of their interest for physical activities.
- The final test proves the statement above, through the increase of the number of people who know their blood group, from 66 to 240 students, which took us very close to the research hypothesis, according to which many individuals belonging to the young population do not know their blood group because they have no information on the importance of this piece of information, and on the implications it may bring (accidents, etc.);
- The subject discussed in this article is a challenge for specialists, but may be perfected and completed, especially in the section concerning indicators that measure health problems, Physical Education, and life.

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