SCHOOL STUDENT STRESS IN ROMANIA

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Abstract. Going global is hardly valid for Romanian schools. The network of reasons for this delay is pretty complex, including economic and social factors and, to be sure, psychological factors as well. They actually overlap, one dimension now coming first to be gradually substituted for another, as the case may be. Distress / exhaustion / overwork is our primary choice, and we will refer it to a large group of 4,100 school students in Transylvania and Moldavia. We next look into the causes (objective and subjective) and then look for prevention modalities and ways to avoid this deadlock. The case of the commuters is then analysed, the three above-quoted dimensions now being supplemented with data on the biological factors involved in the process. We finally look into the possible solutions to take with a view to getting the globalization of the Romanian school system.

Keywords: Romanian school; student; distress; overwork; globalization.

Introduction

A specific feature of childhood is that during this period the body experiences a maximum of somatic development. Because development, together with adaptability and school performance, is one of the chief components of health, the organization of the pupils' daily regime under hygienic conditions is of great importance, both medically and psychologically. The explanation resides in the fact that a smoothly running educational activity makes a contribution towards promoting students' health in all its complexity.

The complex character of life in general and especially the objective circumstances in schools may constitute real obstacles to organizing a system of hygienic living in all respects. Consequently, it is impossible to act in this regard on the basis of universally valid rules of conduct or according to rigid schemes.

The need of taking into consideration certain physiological and hygienic requirements when establishing the educational program appears as undeniable.

In order to ensure maximum performances in school without endangering the health of the pupils, their daily schedule must evolve according to the "stage" that the body is at. This means that activities must coincide with recovery stage of the body, while rest stages must be set when recovery is necessary due to tiredness.

School burnout, unlike ordinary physical fatigue, cannot be relieved by rest, because it is a medical condition with both immediate consequences, such as reduced efficiency, and belated ones, such as increasing the likelihood of infectious diseases (tuberculosis, acute viral hepatitis) or psychosomatic diseases (peptic ulcer, hypertension, biliary dyskinesia, etc.) due to the general decrease of the pupils' body resistance to aggressions in their environment (microbial and viral agents, "enjoyable toxins" such as smoking and alcohol, food factors, etc.)

For these reasons, efforts should be made to compile a rational and hygienic school schedule.

Educational activity requires ensuring rhythm and variety in order not to overly increase

the effort of the students. At the same time, discontinuity or an excess of relaxation are also not advisable because they interrupt the normal regime of nerve activity, gained through training, and its subsequent recovery requires new effort and unnecessarily spent time.

In addition to decreased school performance (up to the so-called phenomenon of "resigning" school, characterized by lack of involvment in school work and refusal to attend school), deviations from these factors also generate a series of aberrant behavioral responses (educational maladjustment), which sometimes end in juvenile delinquency.

Of major importance is, in this respect, the intellectual activity, which, when rationally organized, represents a means of promoting the mental health of the students and implicitly school performance. However, when it is faultily organized, it becomes (at first) a factor of fatigue, which may be recovered through recreation (sport exercises, walking outdoors) or passive rest (sleep), and finally an intellectual burnout factor.

Pupils are subjected to continuous stress, dealing both with the pressure of teachers when they are at school and with that of the family when at home. Parents often accustom their children to a fast and tiring pace.

Medical work in the field of educational and vocational orientation is based on a series of laws such as the Romanian "Health Insurance Act" of 1978, which states the mandatory character of the comprehensive health assessment for orientation towards high schools, vocational schools, and higher education.

School orientation begins with the child being declared fit for schooling at the age of 6 / 7 years, if the child's physical and mental development is normal. The school debut may be postponed if there is a delay in the neuropsychic or physical development of the child, a sensory impairment or a chronic condition which leads to a low adaptational capacity of the child to school requirements.

Students who have been professionally wrongly oriented at the end of the middle school or who fell ill during their school education and are entirely unfit for the original job profile can be redirected to another profile (job). There are provisions of the Ministry of Health and of the Ministry of Education for transferring students from one profile to another. In this manner, their health is protected and their wishes of performing a certain job / profession, like the other pupils, are taken into account as much as possible.

For students with certain health deficiencies, certain professions can not be recommended.

The school physician who also performs counseling activities in educational and vocational guidance should indicate, on the basis of specific criteria, the academic profile that is not recommended in relation to the possible condition or disease of the student. To this purpose, the school doctor, together with the occupational physician, must take into account the type of condition that the student has.

It is mandatory for the doctor to know all the characteristics of the trades which are not recommended for students / graduates of middle schools and / or high schools.

School medicine has long been an essential part of modern educational process. For many years the "white coats" have been a safety factor in Romanian schools, both by addressing emergency medical situations and by the constant supervision of the growth and development of preschool children, school children and adolescents. In recent years, the state of school medicine in Romania has improved, but it is still far from ideal. Low salaries and

insufficient equipment still keep many graduates of medicine away from this field.

School medicine is a branch with tradition in our country, the first attempts dating back to the period immediately following the Second World War, with the French system of medicine as a model.

Over the years, school medicine has alternatively been under the Ministry of Health and the Ministry of Education.

Since 1948, school medicine has operated under the Ministry of Health and it is the only branch of medicine financed from the state budget. In addition to the branches devoted to school children and to university students, respectively, it includes pre-school medicine, which is practiced in medical offices in kindergartens and / or nurseries.

In the 2004-2005 school year, the activity was included in the Ministry of Health's work program has been since known as the "National Community Health Program No. 1".

According to The law of Medical Assistance for kindergarten pupils, pupils and university students, it is regulated by the Ministry of Health and Family Order No. 653 / 2001, which stipulates for a school doctor for 2000-2500 students.

Occupational disease is defined as an affliction that occurs as a result of exercising a trade or profession, being caused by certain physical, chemical or biological noxious agents, which are characteristic of the workplace. Occupational disease can also be triggered by the overuse of various organs and systems of the body during the work process, including intellectual work. Illnesses suffered by pupils and students during their practical training are con considered to be occupational diseases. The difference between work accidents and occupational diseases resides in the fact that occupational diseases occur slowly, due to the action of various factors (listed above) which act on the human body, and are not the result of a direct and sudden action.

In the case of pupils, declines in health, caused by risk factors in the educational process, can be detected during the general medical examinations by the school physician, working in cooperation with the occupational physician.

Health-related information on educational and vocational guidance of pupils or students are useful for the teachers, counselors, form teachers, parents, school physicians, family physicians, as well as for the student / teenager's family.

To prevent mismatches between the skills of students and their initially selected educational / professional path, it is required to diagnose their present as well as future health through medical examinations that are conducted at certain ages, moments that should be seen as important transitions from an educational cycle to another.

A general medical examination is made at the end of a school cycle.

As far as students with health problems are concerned, they are directed either to a particular school profile or to special education, a decision based on the conclusions of the general medical examinations and of the results received from specialists.

This module reviews the main moments of advice and guidance, the stages that students follow, according to their age. In order to efficiently guide the students, doctors and teachers must know not only the anatomical and functional characteristics of each student, but also their skills, the educational paths they may follow, the practical activities they may carry out and the practical activities that are performed in school workshops or in the businesses where the practical training is carried out.

Orientation is defined as the totality of educational, social and medical activities that help the young people to freely develop their personality. In student orientation, the best educational and professional route should always be chosen, depending on the student's skills and motivations.

Educational activity includes a preliminary activity which aims to identify the personality of each student, so that the student will be properly guided towards the appropriate type of school for his intellectual skills. Educational orientation intertwines with professional orientation, through which young people are given the chance of a professional path, taking into account their physical, intellectual and psychomotor skills.

In addition to general aspects, both educational guidance and professional orientation involve different medical aspects related to certain deficiencies that children may have.

For both healthy children and those with illnesses or disabilities, an important role is played by the school physician, who is qualified to specify the types of activities that are appropriate to their morpho-functional peculiarities and to which they should be directed.

The legal medical basis for medical guidance is The General Rules for Labor Protection, developed by the Ministry of Labour in 1996.

In the health surveillance of children and adolescents it is necessary to be aware of the mutual relations between education and health, as well as of the correlation between the quality of the learning process and health. Both aspects are the responsibility not only of educators and physicians, but of the entire society, including parents.

In order to properly carry out the medical activity of educational and professional orientation, the physician must be familiar with the educational routes / tracks of the students, because he or she is one of those who will contribute to guiding them towards a certain profile in the next school stages.

Materials and working method

Following an extensive literature review of the stress causing factors among both teachers and pupils in mainstream schools, we applied an anonymous questionnaire in order to obtain information regarding the level of satisfaction with the occupational / academic microclimate, as well as their opinion on professional overload and on the ability to cope with the duties and responsibilities that they have.

The study included 1,600 teachers, employed in pre-university educational institutions in urban and rural areas of the counties Braşov, Botoşani, Iaşi and Vaslui.

The inclusion criteria for the selection of the teachers:

- pre-university level teacher – primary school teacher or teacher for a specific discipline
- employee of an educational unit in one of the specified counties
- consent to participate in the study
- approval from the school to conduct the research

Criteria for exclusion from the study:

- refusal to participate in the study
- lack of consent from the educational institution to implement the questionnaires in the establishment

The survey also includes a group of 4,100 students enrolled in educational units in the counties of Braşov, Botoşani, Iaşi and Vaslui.

The inclusion criteria by which the students were selected:

• students in grades 5-12 from schools in urban and rural counties of Braşov, Botoşani, Iaşi and Vaslui.

• arts and crafts schools

• enrolled in the schools during the period of the study

• consent to participate in the study

Criteria for exclusion from the study:

• refusal to participate in the study

• lack of parental consent for the student to be included in research

• lack of consent from the educational institution to implement the questionnaires in the establishment

In addition to the questionnaires, a general medical examination was conducted for a total of 3,220 students from schools in Braşov, grades 5-12. The examination includes data regarding medical, social and lifestyle aspects.

Medical aspects:

• *anthropometric indicators of weight and height development*: weight, height, chest circumference, abdominal circumference, hip circumference, blood pressure and pulse, BMI;

• *medical history*: birth weight, birth rank, APGAR score, breastfeeding duration, menarche

• *medical conditions*: acute, chronic, eye (glasses, refraction errors) and dental conditions, number of days / school year with medical excuses, medical excuse from physical education class – motivation (diagnosis).

Social aspects:

• Parents' education level and their age at the birth of the child, type of dwelling, number of people in the family, number of rooms, monthly income of the family

Lifestyle aspects:

• *eating behavior*: amount of sodium in the diet, number of meals / day, dairy consumption, breakfast, school sandwich, fast food, cola, chips, nuts, energy drinks (type), coffee;

• *behavior that is detrimental to the health*: parents who are consumers of tobacco and alcohol (type);

• *daily activity hygiene*: sleep duration / 24 hours, morning / afternoon school program, number of school hours / day , number of study hours / day (school, at home, at the weekend, tutoring / week), subjects considered to be demanding, afternoon rest, practicing sports (physical exercise), hours spent at the computer, watching television, age when starting school, average mark at the end of the grade.

The questionnaires were applied during 2010, 2011, 2012 and were completed by self registration under the guidance and supervision of the interviewer.

The questionnaire observed the methodology of scientific research by including:

- 7 items to characterize the groups;
- 35 items for testing the satisfaction with the occupational / school microclimate.

The questionnaire contained questions with pre-formulated answers (scale) and was pre-tested in one pilot group consisting of 5 teachers and 5 students. The subjects participating in the pilot study were excluded from the research itself.

The ethics of scientific research were upheld, including the anonymity of the data in the study and obtaining the consent for participating in the research from the subjects (teachers and students), the students' parents and from the school management.

The data was processed by statistical and mathematical methods and presented in Microsoft Excel.

Results and discussion

Characterization of the students. The data analysis in Table 1 and the graphical representation in Figure 1 show that over three quarters of all students in the study - 78.54 % - come from Braşov county. Pupils from Iaşi account for 11.71% of the total number, 5.56% come from Vaslui county and 4.20 % are from Botoşani.

Table 1. Distribution of students according to county of origin

	Total	**Braşov**	**Botoşani**	**Iaşi**	**Vaslui**
Total	4100	3220	172	480	228
	100%	78.54%	4.20%	11.71%	5.56%

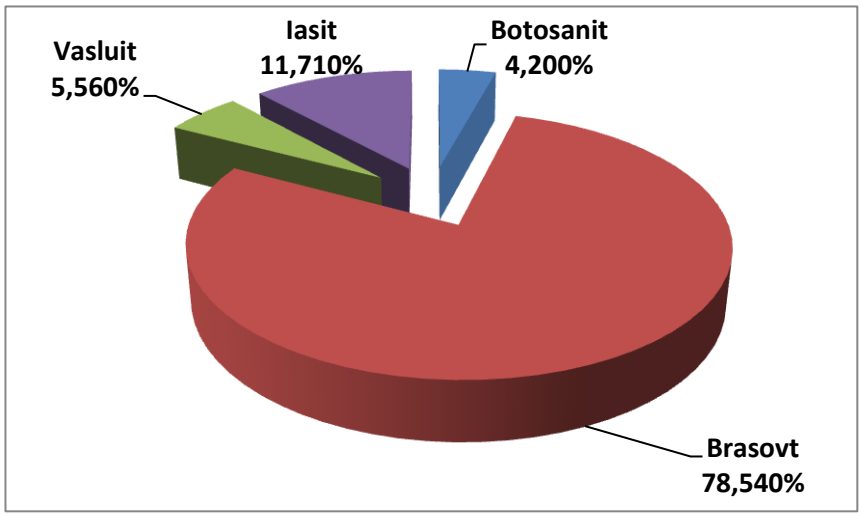

Figure 1. Percentage of students according to county of origin

The distribution of the students in the study according to the origin shows that the largest share - 84.41% - is held by students in urban areas, and the remaining 15.59% are rural. (Table 2, Figure 2)

Table 2. Distribution of students according to background area

	Total	**Urban areas**	**Rural areas**
Total	4100	3461	639
	100%	84.41%	15.59%

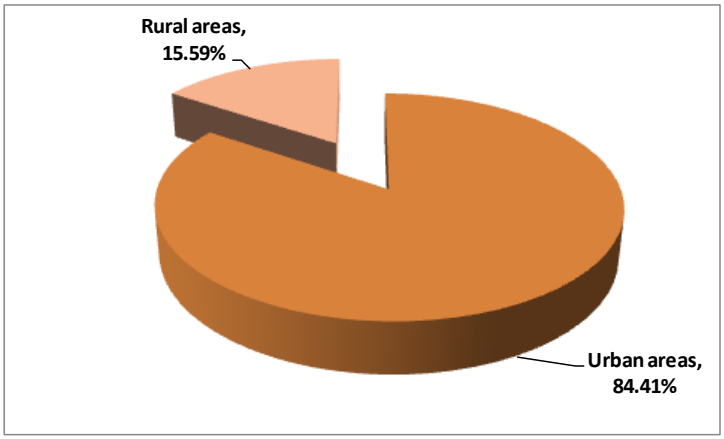

Figure 2. Percentage of students according to background area

The distribution of students according to gender shows that over half of the subjects, namely 55.02%, are female, and over two-fifths - 44.98 % - are male. (Table 3, Figure 3)

Table 3. Distribution of students according to gender

	Total	**Male**	**Female**
Total	4100	1844	2256
	100%	44.98%	55.02%

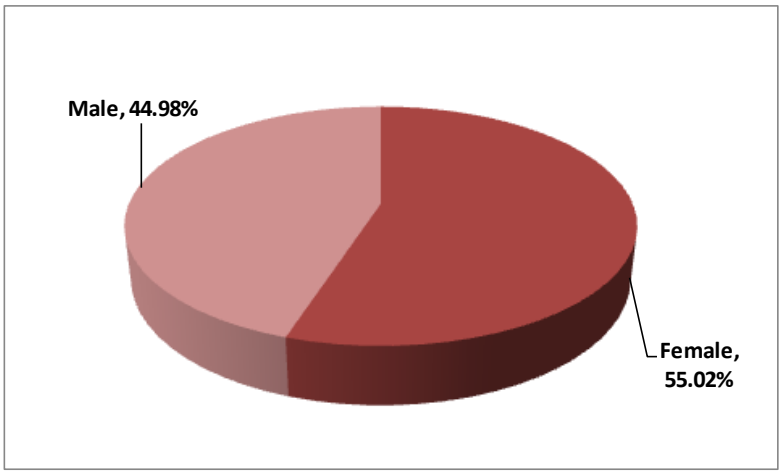

Figure 3. Percentage of students according to gender

The analysis of the data in Table 4 and the graph in Figure 4 show that more than half of the subjects included in the study, representing 53.41%, pertain to the 10-14 years old age group. Over a fifth of them - 42.80 % - were aged 15-19 years. A share of 2.88% is held by the 20-24 years old group and the remaining 0.89% are aged 25-47.

The higher ages of the subjects are explained by the inclusion in the study of students who attend a vocational school, as enrollment in this form of education is not conditional on age.

Table 4. Distribution of students according to age group

Age group		Total	
		4100	100%
Total number of students	10-14 years	2190	53.41
	15-19 years	1755	42.8
	20-24 years	118	2.88
	25-29 years	10	0.24
	30-34 years	12	0.29
	35-39 years	12	0.29
	40-44 years	1	0.02
	45-47 years	2	0.05

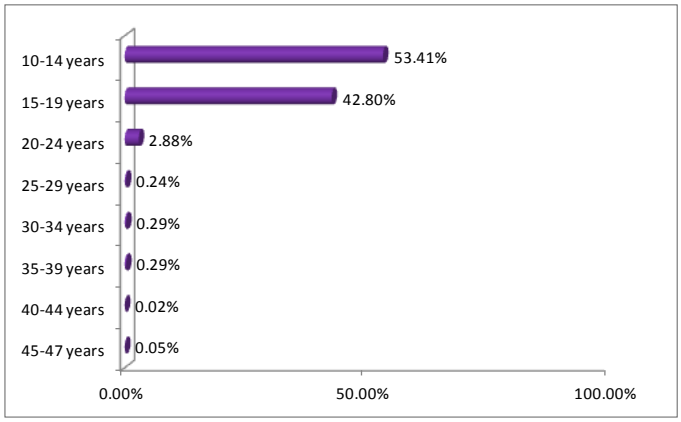

Figure 4. Percentage of students according to age group

From the distribution of subjects according to grade of study, it can be noticed that a fifth - 20.56 % - are students in 8th grade; almost equal shares of 14.88%, 14.56% and 14.00% are held by pupils in 12th, 7th and 5th grade, respectively. A percentage of 12.93% are in 6th grade, 9.17% are students in the 9th grade, 7.76 % are in the 11th grade, while 10th graders have a share of 4.02% of the total and students in arts and crafts schools are 2.12 % of the total sample size.

Table 5. Distribution of students according to grade

Grade		Total	
		4100	100%
Grade of study	5th grade	574	14
	6th grade	530	12.93
	7th grade	597	14.56
	8th grade	843	20.56
	9th grade	376	9.17
	10th grade	165	4.02
	11th grade	318	7.76
	12th grade	610	14.88
	Arts and crafts schools	87	2.12

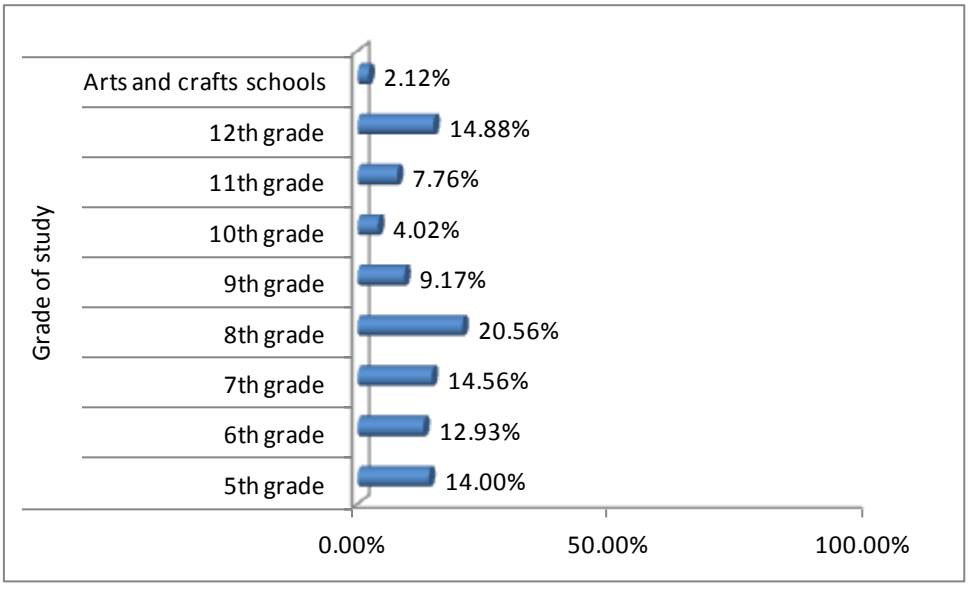

Figure 5. Percentage of students according to grade

The analysis of the data in Table 6 and the graph in Figure 6 show that the majority of the pupils - 84.29% - say they do not have to commute and 15.71% of the students state that they commute to and from the school they attend. (Table 6, Figure 6)

Table 6. Distribution of students who commute to and from school

	Total	Commute	Do not commute
Total	4100	644	3456
	100%	15.71%	84.29%

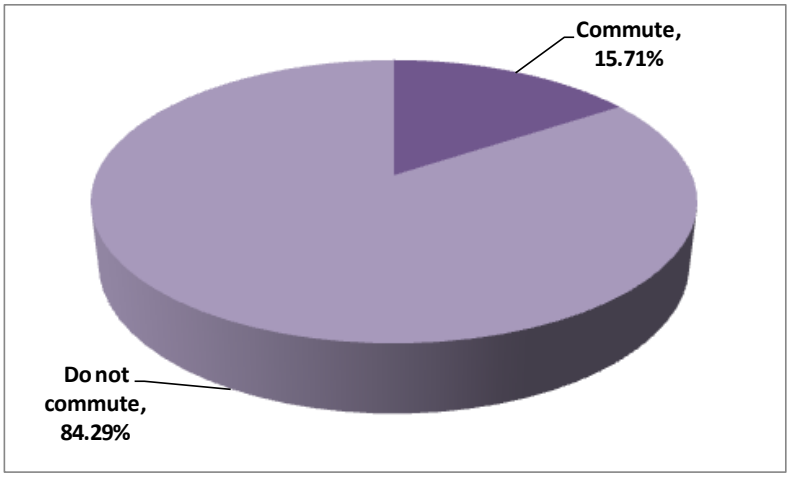

Figure 6. Percentage of students who commute to and from school

Conclusions

More than half of the teachers surveyed are employed in Braşov County schools. Most of the teachers belong to an urban environment, almost three quarters are women and two-thirds of the teachers, regardless of origin, are 30 to 49 years old.

Our research has found that nearly half of the respondents (49.13%) have a level I didactical qualification; over 82.81% of the respondents are teachers, almost half (49.32%) have been employed in the current unit of pre-university education for 1 to 10 years, and over two-fifths (43.82%) have between 11 and 30 years of constant activity in the same unit, regardless of their provenance.

More than three-quarters of the students in the study come from pre-university schooling units belonging to Braşov County, with only 15.59% of the respondents belonging to the rural areas of the four counties studied. The total group (combined average and counties total) is predominantly female.

Only 3.77% of the students are more than 20 years of age, all of them being enlisted in arts and crafts schooling units. Over 80.00% of subjects say they do not have to commute to and from the educational institution they attend.

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