# CAUSES AND CONSEQUENCES OF THE MIDDLE SCHOOL LEVEL STUDENTS' OVERSTRESS

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Abstract: An issue, with which the contemporary Romanian school is confronted with, in all its dimensions, is brought more and more frequently into discussion. Whether it is about the fact that the students have to learn too much, and usually things that seem to be of no use, or that the students' schedule is extremely overloaded, and thus they neglect their rest and meal schedules putting their health in jeopardy or the fact that the teachers are assigned with so many responsibilities, many of which exceed their pedagogical tasks, it all reduces to a single term: overstress.

What are the causes of this phenomenon and how can its consequences on the middle school level students be diminished? These are issues for which this study attempts to find some answers.

**Keywords:** overstress, learning process, cognitive overstress, obstacle, overloaded schedule

#### **Theoretical framework**

Overstress, as a phenomenon, is a reality with which both students and teachers are confronted with and which has negative consequences on the current educational system's efficiency. In order to solve this problem, first of all, one needs to know and recognize the causes that determine the emergence of this phenomenon. Moreover, it represents the shared responsibility of all the factors involved in the education of the youngsters: educational policies, school, community, family and the students themselves. In this way multiple directions of action are outlined. In a broad sense, overstress represents any demand in excess and is associated with the Anglo-Saxon term *burnout*, term also used in the Romanian specialized vocabulary. The concerns with this phenomenon have explicitly manifested starting with the 1970s, however, the term *burnout* was first used by Herbert J. Freudenberger who, starting from the initial acceptance of the verb, that is "to fail, to wear out, or become exhausted by making excessive demands of energy, strength, or resources" (Freudenberger, 1974, p. 159), has used the term to define that state of *distress* caused by the workplace's excessive requirements.

The specialized literature highlights two situations in which overstress emerges. First of all, "when there is an unbalance between *the demands and requirements* of a job and *the resources made available by the organization* (Bakker & Demerouti, 2013, apud. Diehl & Carlotto, 2014, p. 742)" and/or the person's efforts (Schaufeli, 2006 apud. Diehl & Carlotto, 2014, p. 742). Secondly, when the incongruities emerge "between *values and individual motivations* and *institutional missions and orientations*" (Leiter, Bakker, & Maslach, 2014; Maslach & Leiter, 1999 apud. Diehl & Carlotto, 2014, p. 742) proposed for the successful completion of the tasks. These overstress causes offer the possibility to reflect upon two important issues that refer to the educational process and which will be further presented.

The first issue refers to the overstress of both students and teachers, by means of the educational policies and school curriculum. As far as the educational policies are concerned, the Order of the Minister of the National Education and Scientific Research (henceforth referred to as OMNESC) no.3590/2016, published in the Official Gazette of Romania, part I, no. 446/15.VI.2016, the minimum number of hours spent in school by the middle school level students varies, according to the school's profile and the year of study, between 26 and 37 hours per week, the maximum number reaching even 38 hours per week. Therefore, it can be observed that a child between the age of 11 and 14 spends up to 7-8 hours per day at school and no less than 5-6 hours per day. This means that a middle school level student spends 8-10 hours/day for all school activities, if one also considers the OMNESC no. 5893/28.11.2016 which stipulates that the time dedicated to homework, for this age group, should not exceed 2 hours per day. On the other hand, there is also the overloading of the school curriculum within all its components: goals, contents, teaching and learning time, teaching and learning strategies, evaluation strategies (Potolea, Neacsu & Iucu, 2008, p. 150). A broadly discussed issue within the entire community is that of the curriculum's overloading due to the fact that it affects students and teachers as well as the students' families. The overloading of the curriculum happens because "there is always a tendency of introducing new knowledge and information (...) due to the fact those who develop the curriculum do not have a perspective over all the contents that students have to cover and consequently they do not accurately understand the efforts that the students have to make in order for these contents to be assimilated and understood"

(Frunză, 2003, pp. 167-168). The issue of the curriculum's drafting is more complex and cannot be approached in this context. However, we highlight the need for the accurate contents' selection according to the relevance criterion, respectively to that of the conformation to the individual and age particularities of the students. The teaching and learning strategies used in the middle school give little importance to the differentiation and individualization of the process of education, which would ensure demands adapted to the students' real possibilities. The standardization of demands, the normative evaluations, the orientation of education towards performance (especially for some subject matters, such as Mathematics) and so on, creates disadvantages for a significant number of students, overstressing them. Evaluation, in the Romanian educational system, is often done under pressure. The student is caught in a field of interests, which are frequently contradictory and generate tensions: the interests of the educational system (with all its components, including teachers), the interests of the community (in a broad sense, the community, and in a restricted sense, the family) and the interests of the student (their neglect generates resistance reactions from the students, manifested by means of different sanctionable behaviours).

The second issue is related to the sociocognitive model of motivation in school (Viau, 1999), in which the perception of the task's value, control and competence are determining factors of the motivation for learning and, implicitly, levers for the mobilization of the energy resources necessary for learning. In this model, the motivation for learning follows the dynamic of the relation determinants-indicators, mediated by the student's emotions during the process of learning. Consequently, the didactic situations created by the teacher and the manner in which these are experienced by the students have a decisive role on their degree of engagement and insistence in their learning activity, influencing the feeling of school-related overstress.

Overstress is a complex, multidimensional phenomenon, which leads to "emotional exhaustion, characterized as the lack or deficiency of energy and enthusiasm (...), depersonalization, situation in which the professional treats customers, coworkers and the organization as objects, developing an emotional insensitivity, [and not least the] feeling of low personal accomplishment, defined as the worker's tendency to do a negative evaluation of himself or herself, feeling unhappy with himself or herself and dissatisfied with his or her professional development" (Diehl & Carlotto, 2014, p. 742). Within the school, overstress mainly affects the person experiencing such a state, however, the effects are also experienced by the others. Thus, the teachers' state of overstress has a negative effect on their students and, in the same time, the teachers' task becomes even more difficult when they have to work with tired and demotivated students. The state of cognitive and affective overstress has negative effects on the well-being of the people experiencing it, on their personal, professional and social lives and the longterm consequences can cause imbalances within the entire society. Therefore, both students and teachers experience the effects of overstress. The teachers affected by this phenomenon have a very low level of self-trust, a negative mood and are physically exhausted (Roloff & Brown, 2011). The attitudinal structure of the teachers' personality is also affected and due to the fact that there is a strong connection between the teachers' morale and the level of performance attained by the students (Evers, 2011), it has the most significant impact on the students' school conduct, affecting their performances. So, it becomes clear that it is necessary to combat this phenomenon in order to ensure an educational environment suitable for the development of generations able to efficiently face the challenges of the future, challenges that are difficult to anticipate.

Returning to the effects felt by the middle school level students when experiencing overstress, the following are brought into focus: the physical and mental distress, the students' demotivation as far as school activities are concerned, the superficial learning by covering the school subjects "under pressure" and obviously the increase of the conceptual gaps which prevent the complete understanding of the essential notions, this having negative long-term consequences on the construction of cognition (from the cognitivist perspective of learning). In extreme situations, which are frequently encountered, it can also take the form of a general negative attitude towards school, truancy and drop out.

An interesting approach for addressing the issue of the students' overstress is the study of obstacles and errors in learning (Căprioară, 2011) due to the fact that these can be considered both causes and consequences of overstress. The typology of obstacles developed by J.-P. Astolfi (1997), which starting from the specific processes (teaching, learning, training) of pedagogy's triangular model described by J. Houssaye (2014), contains epistemic obstacles (manifested at the level of knowledge and which refer to the internal difficulties of the notion's content), psychological obstacles (which manifest themselves at the students' level and which refer to their cognitive characteristics), respectively didactical obstacles (the generating source is the teacher, by means of the employed teaching strategies).

The three categories of obstacles described by this model (epistemic, psychological, respectively didactical obstacles) characterize the main components of the didactical system. However, during the didactical activity there have been identified obstacles that emerge in the processes that define the interaction among these components, presented by Astolfi in this model. Therefore, in *the teaching process* the specific obstacles are: *the elaboration and understanding of requests, transfer related issues* or *the internal complexity of the content*. Among those specific for *the learning process*, the most frequent are: *the students' alternative representations, the distance in relation to the expected endeavours* or the *nature of the available processes*. As for *the training process*, the frequent obstacles with which the students are confronted with are: *the cognitive overstress state* and *the* 

*manner of decoding the didactical habit.* These types of obstacles will be further on analysed, one at a time, according to the errors they produce.

In the typology of errors developed by J.-P. Astolfi (1997), the errors in learning determined by *the students' cognitive overstress* can mainly manifest whether as obliteration from *the work memory* (Crahay, 2009) of certain elements of the contents, when a problem's enunciation is abundant in data, or as a problem's lack of sense, when finding its solution supposes making laborious calculations which consume all the student's attention and energy. The school curriculum for the middle level contains numerous chapters in which the specific terminology is affluent in terms and hard to grasp; at least until the specific conceptual sphere acquires content and individuality. Thus, there frequently appear errors, obliterations and confusions. For these reasons it is highly important to select the contents that will be taught in order to reach to the essential, but also to adapt the work tasks to the didactical aim previously set.

One effect of the cognitive overstress, taken as example from the Mathematics learning in school, is the students' difficulty to apply the specific strategies for solving a task (solving an exercise, a problem etc.). In order to explain these difficulties three hypotheses have been formulated. One would be the fact that the students have not internalized the appropriate strategies for solving the task (availability deficiencies, Veenman & Van Hout-Wolters, 2006, apud. Crahay & Dutrevis, 2010, p.34). Fayoll (2008) highlights the utility of, even the necessity for an explicit manner of teaching of the cognitive strategies required for the accomplishment of a complex task (for example, the complete reprezentation of the problem that has to be solved). The second hypotesis refers to: the deficiency in strategies use (production deficiency, Veenman & Van Hout-Wolters, 2006, apud. Crahay & Dutrevis, 2010, p.35 ), due to cognitive overstress, or the fact that the students cannot comprehend the link between the task's characteristics and their capacities (the insufficient conditional knowledge of their capacities). To these, the motivational beliefs can be added, more precisely the development of the learnt incompetency feeling (helplessness). Thus, cognitive overstress can influence the causal assignment (it refers to the attributional causes and dimensions, according to R. Viau, 1999) of the failures in learning, with a great impact on the self-image and of the task-solving competency. The different combinations among these types of causes offers different perceptions from the point of view of the control that the students can have over the activities in which they are engaged in. When these causes are felt as being external, stable and uncontrollable they can produce "learnt helplessness" ("the students' abandonment reaction due to the belief that regardless of the things they did, they could still not succeed" (Viau, 1999, p.68). Another version of this phenomenon takes the form of "acquired resignation" ("the extreme form of perceiving the impossibility to control an activity, which a student may feel", Viau, 1999, p.68)). This state does not appear suddenly, but it is the result of a long sequence of efforts made by the student, which are followed by failures reordered by the assessments. Therefore, this highlights the imperative need to be aware of the effects that the repeated failures can have on the students. The reality in schools reveals that, in this kind of situations, all the didactical methods and means applied by the teacher in order to help these students recover are doomed. *Knowing* these situations and *preventing* them are the most efficient methods didactically speaking, and in case they happen, the fast *identification* and appropriate *treatment* of the causes that determined them are recommended.

Interestingly enough, teachers often assume a duplicitous position when it comes to expressing an opinion about school-related demands and this happens as a result of their duplicitous social role, of teachers and parents. Therefore, "as parents, the teachers recognize that too much is demanded from the child (referring to the quantity of information, the details involved in different subject matters) [however] if they are asked as specialized teachers, their concern for their jobs and for the future makes them see things differently" (Niculescu, 2010, p. 50).

### **Research methodology**

The present research aimed for:

O1. The identification of the factors with a high level of demand as experienced by the students;

O2. The identification of the possible measures or solutions proposed by the students for the decrease of the school overstress level.

The study started from *the assumption* that middle school level students have an extremely strenuous daily schedule and that they are affected by its effects.

The research data have been obtained by means of a questionnaire applied to a lot of 31 students of middle school level, from an urban area. The lot was structured as follows: 13 students from the 6<sup>th</sup> grade (11-12 years old) and 18 students from the 7<sup>th</sup> grade (12-13 years old). Considering the gender criterion, 19 girls and 12 boys have participated at the study. We avoided applying the questionnaire to students from grades prone to high level of overstress due to the necessity to adapt to the exigencies of a new cycle of school (the 5<sup>th</sup> grade) or to that to prepare for the final exam of the middle-level studies (8<sup>th</sup> grade). The questions used in the questionnaire applied to the students referred to the following variables: *spare time; extracurricular activities; school-related demands; supplementary preparation for school; satisfaction in relation to school activity; the feeling of overstress.* 

#### **Results and discussions**

The results obtained for the first set of questions are summarized in table 1.

Variable 1: Spare time	Always	Frequently	Rarely	Never
Activities unfolded in the spare time	25.8	25.8	25.8	22.6
Satisfaction in relation with the daily schedule	9.7	35.5	45.2	9.7
<i>Efficient organization of the spare time</i>	22.6	29.0	45.2	3.2
Sufficient time for spending with family or friends		32.3	38.7	16.1
Daily sleep schedule of at least 8 hours per day	38.7	22.6	29.0	9.7

Table 1. The frequency distribution for the Spare time variable

Almost half of the students, more precisely 45.2% of those questioned, have difficulties in managing their spare time and for this reason they are not satisfied with their daily schedule. If these results are correlated with the 38.7% of the students who declare that they rarely or never get the recommended 8-hour sleep each day, we realized that this is the result of an overloaded daily schedule. More than half of the students questioned declared that they unfold different activities in their spare time, related or not to the improvement of school performance. However, 54.8% recognized that they have insufficient time to spend with their families and friends. This finding is alarming since it negatively affects the social life of the students. The aim of education is the students' preparation for life, for functioning properly in the society and the fact that students, from an early age, are left without the opportunity to socialize may have negative repercussions for the society's future development. Strikingly, the results revealed by this particular variable point to a severe unbalance in Maslow's hierarchy of needs which greatly influence the overall motivation of a person. Thus, the neglect of the first and the third levels found at the base of the pyramid, the physiological needs (more precisely, rest) and the belongingness and love needs (relationships and friends), leads to inability to fulfil the higher levels, which contribute to the person's sense of well-being and achievement and which further motivates one to continually develop.

The students' answers to the items corresponding to variable 2 are organized in the following table.

Variable 2: <i>Extracurricular activities</i>	Always	Frequently	Rarely	Never
Participation in school contests	9.7	32.3	29.0	29.0
Implication in extracurricular activities, at school, during the week	12.9	6.5	45.2	35.5
Participation in excellence workshops	9.7	12.9	35.5	41.9

Table 2. The frequency distribution for the *Extracurricular activities* variable

For the variable extracurricular activities, the study has indicated that even though the percentage of those involved in other school related activities apart from those unfolded during the school timetable is not very high (only 19.4%), 42% of the students responding to the questionnaire admitted to habitually or permanently participating in school contests. This result, correlated with the 22.6% of those frequenting excellence workshops, proves that a considerable amount of these students' daily programme is dedicated to such activities. This type of activities contribute, as previously mentioned, to the neglect of the students' basic needs for rest, socialization and leisure, affecting their overall motivation and leading to a feeling of overstress.

The following set of items has targeted the students' opinions in relation to their school programme. These have been centralized in the table below.

Variable 3: School- related demands	Always	Frequently	Rarely	Never
Students' satisfaction in relation with the school schedule	16.1	51.6	25.8	6.5
More than 2 hours per day spent for doing homework	12.9	41.9	32.3	12.9
Time spent at school exceeding 5 hours per day	22.6	64.5	12.9	0

Table 3. The fr	equency distribution	for the School	-related demands	variable

Shockingly enough, the results obtained for the variable concerned with the perceived school- related demands indicate that even though a high percentage of subjects confirmed that they always or frequently spend more than 5 hours per

day at school (87.1%) and that the time dedicated to doing homework exceeds 2 hours per day (54.8%), In 67.7%) of the cases the students are quite satisfied with their school schedule. We consider these findings cause for further investigation due to the fact that the students may have internalized this overloaded schedule, considering it to be normal. In the same time, we emphasize the necessity for the students' schedule to be rethought, by those responsible for it, since they spend probably as much time at school as adults do at their jobs, sometimes even more.

The following table presents the data obtained for the questions related to the *Supplementary preparation for school* variable.

Variable4:Supplementarypreparation for school	Always	Frequently	Rarely	Never
Involvement in supplementary preparation activities which ensure school success	16.1	29.0	35.5	19.4
Efforts made to prepare additionally for obtaining better results	3.2	22.6	58.1	16.1

Table 4. The frequency distribution for the Supplementary preparation forschool variable

This variable highlighted the importance that students give to obtaining good result and achieving overall success. Thus, the survey showed that 45.1% of the students consider it necessary to prepare additionally in order to face the challenges at school and 25.8% feel that they make a special effort in order to obtain good results. This type of physical, cognitive and emotional work done by these students contributes significantly to their feelings of school-related overstress.

Table 5 contains the items focusing on the *Satisfaction in relation to school activity* variable.

Even though an overwhelming 83.9% of students put their fate in school, considering it to be the place that endows them with indispensable competences necessary in their future lives, more than 58% of them are not satisfied with their school activity regardless of the efforts made. When it comes to parents' satisfaction the balance changes, with almost 71% of the parents content with the results obtained by their children. Could it be that the students have higher standards than their parents do or that they believe that success in school is only recognized with the help of rankings?

 Table 5. The frequency distribution for the Satisfaction in relation to school activity variable

Variable 5: Satisfaction in relation to school activity	Always	Frequently	Rarely	Never
Satisfaction in relation to school activity considering the efforts made	12.9	29.0	51.6	6.5
Use of information for future achievements	48.4	35.5	16.1	0
Parents' satisfaction in relation to the students' school results	29.0	41.9	29.0	0
Successful fulfilment of the teachers' demands for each subject matter	19.4	48.4	32.3	0

The answer to this question undoubtedly represents the purpose of yet another research. Last, but certainly not least, according to the students' statements, the issue of fulfilling their teachers' demands is cause for dissatisfaction for 32.3% of the students. This is also a cause for concern since it leads to severe emotional overstress and, in most of the cases, to demotivation for school-related matters.

In the table presented below, there is data concerning the *Feeling of overstress* variable.

Variable 6: Feeling of overstress	Always	Frequently	Rarely	Never
Fatigues felt during the school year	38.7	45.2	6.5	9.7
Perception of the school schedule as overloaded	48.4	35.5	19.4	9.7
Reduction of spare time as result of the teachers demands' fulfilment	12.9	25.8	51.6	9.7

Table 6. The frequency distribution for the *Feeling of overstress* variable

What is perhaps the most disturbing is the fact that 83.9% of these students do not only experience overstress, but also recognize themselves as being its victims. The same percentage of students recognize that their schedule is overloaded and could use some adjustments, yet only 38.7% of them consider the

fulfilment of their teachers' demands as cause for their spare time diminution. Since they understand some of the causes of overstress, we consider it essential to help students not only recognize the indicators of overstress and its consequences, but also the ways of preventing it. Extremely helpful in this respect is also the cooperation of everyone, be it teachers, parents, students or policymakers and curriculum designers in order to efficiently contribute to the development of a physically and emotionally healthy society.

The following figure presents the students' answers to the open-question "What do you feel stresses you the most?"

The answers obtained at this last dimension reveal that the students perceive certain school-related matters to consume their energy and time, proving that they are concerned with school and with complying with the rules set by it. Thus, one is left questioning whether there is a balance between the efforts made by the students to achieve overall success and the efficiency of the educational process.

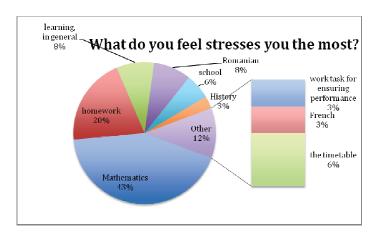


Figure 1. Factors felt by the students as being demanding

#### Conclusions

Taking into consideration the determining factors, the effects felt by the students in their school, social and personal lives and the solutions proposed for the decrease of the school overstress level, the following conclusions can be drawn:

*The causes of overstress* are multiple and according to the way in which they are perceived by the students can be classified as follows:

- the school timetable exceeds 5 hours per day in 87.1% of the cases;

- the fatigue felt during the school year expressed in 83.9% of the cases;

- the school schedule considered by 83.9% of the questioned students as overloaded;

- the time spent for doing homework, which exceeds 2 hours per day, (in total incongruence with the provisions of the OMNESC no. 5893/28.11.2016) in 54.8% of the cases;

- extracurricular activities unfolded during the week or during the weekend (sporting or practical activities etc.) in 51.6% of the cases;

- supplementary preparation activities which are unfolded to ensure school success for 45.1% of those questioned;

- participation in school contests for 42% of the students.

Highly important is also the fact that at the open question "What do you feel stresses you the most?" according to the data presented at Figure 1, all the students questioned claimed causes related to school. Hence, it can be observed that their universe is focused on this reality, to fulfil the challenges addressed by the school and to manage these situations in the best possible way.

Among the effects that are personally experienced, concerning the personal, social and school spheres, it was observed that most of the students. Due to the fact that their schedule is extremely overloaded, 54.8% of the study's participants state that they do not have sufficient time to spend with their family or friends. 54.9% of the total number, consider themselves unsatisfied with their daily schedule and the same percentage of all the questioned subjects (54.9%) feel that they do not manage to it appropriately.

Among the students' proposals for a less loaded schedule, the most frequent are: *the decrease of the number of hours spent at school (no more than 5 hours per day); the decline or even the abolition of homework; the contraction of the contents that need to be learnt;* the classes' attractiveness; the efficient management of the daily schedule; a 2-hour time span ensured each day for relaxing activities; a 30-minute break during the school day; the reduction of contests' participation; assessments' elimination.

The need to decrease the overstress phenomenon among students is obvious and it can be achieved by means of identifying the suitable and efficient solutions to the acknowledged concerns. If we desire a high-quality educational system, focused on the present and future needs of the students, we find ourselves in the position of recognizing the fact that the issue of teachers' overstress is undoubtedly not least important. Therefore, this study, apart from addressing the topic of overstress as far as students are concerned, creates the opportunity for further studies to unfold, analysing overstress from the teachers' perspective.

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