THE CONSIDERATION OF STUDENTS' AS WORKERS AND THE ROLE OF UNIVERSITY DEPARTMENT ALONG WITH THE YEAR OF STUDY TOWARDS THE EXAMINATION OF BURNOUT

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Abstract

The role of the university department and students' year of birth and year of study in relation to burnout syndrome has been examined thoroughly. In this paper it is assumed that students are considered as workers and that the studies are analogously their work. Correspondingly, the years of study are proportional to both the student's age and the characteristics of the workload to. In this regard, a structured questionnaire was answered by 582 students of the University of Patras whose answers were analysed via an exploratory factor analysis. The aim was to deconstruct the phenomenon of students' burnout in its causal structural elements and to examine the impact of the university department and the year of study on each of these elements. The results showed that the university department affects the students' burnout syndrome via three channels: efficacy and self-accomplishment of studies, lack of interest in university studies and via the difficulty in collaborating with their fellow students and their tutors. Additionally, it appeared that the year of study had a significant effect on students' burnout syndrome, mainly because of physical and psycho-emotional exhaustion· the greatest effect was found in the penultimate year of study.

Keywords: *students' burnout, university department, year of studies, questionnaire, exploratory factor analysis*

1. INTRODUCTION

The basic characteristics of the academic environment are mainly common values, high level of autonomy, critical spirit, creation of new knowledge, educational experience, altruistic interest for students, application of logic, use of evidence, conceptual theoretical rigidity and selfless search for truth through academic freedom.

Historically, (Sales and House, 1971), and until recently it was believed that university processes are protected from work-related stress mainly due to the existence of factors such as academic autonomy, clarity of roles, occupational safety and academic culture. These factors were therefore considered to provide a protective and supportive framework for academic work in future work-related stress situations (Gmelch et al., 1984). However, university space in many countries has experienced intense and wide-ranging changes. The current situation, based on large-scale surveys such as in Australia and Great Britain, shows that despite the increase in student enrolment in universities, the state's financial contribution is decreasing over time while student-tutor ratio is rising. The central picture is that requirements are increasing while resources and autonomy decrease mainly as a result of reduced funding and support (Winefield et al., 2003).

An integral central factor in the academic environment is its students. In this sense, exploring the potential for the student community to experience the burnout syndrome becomes imperative. In particular the burnout syndrome and parameters of student emotional exhaustion, diminished satisfaction, insufficient dedication to studies, occurrence of anxiety, absenteeism, psychosomatic disorders and disruptive interpersonal relations are in need of clarification, (Navarro and Más, 2010).

The burnout syndrome mentioned was initially approached as a phenomenon inherent in the anthropocentric professions. Subsequently, its interpretation has been extended to different occupational schemes, non-anthropocentric occupations and in different contexts such as university studies. Like working adults, students can experience the burnout syndrome as student activities are psychologically reminiscent of "professional" work such as completing tasks, exams and evaluation procedures,

negotiating social contacts and managing time and problems, (Morgan et al., 2014). Indeed, the general activities in which students are committed to can be considered "work", (Schaufeli and Taris, 2005). They are committed to obligatory structured activities - work and attendance - that are directed towards specific goals like success in exams in order to obtain the degree (Karimi and Fallah, 2019).

Neumann, Finaly-Neumann, & Reichel (1990) introduced the term academic burnout describing the sense of exhaustion due to academic demands, the feeling of pessimism, the lack of interest in academic duties - academic apathy - and the poor personal development in academic and educational matters - academic failure -, (Neumann et al., 1990). Through the passage of years academic burnout has further expanded into further educational contexts and situations, (Bikar et al., 2018).

Following the primary structural interpretation, student burnout could be interpreted as a three-factor psychological syndrome characterized by (Schaufeli et al., 2002):

1. exhaustion due to the requirements of the courses,
2. cynic and distant attitude towards the degree and
3. feeling of low efficiency and academic achievement.

In fact, examining students' burnout syndrome is not a matter of concern but rather has been a concern for many years, (Capri et al., 2012; Cordes and Dougherty, 1993; Dyrbye et al., 2008; Maslach and Goldberg, 1998). Indicatively, based on the research of Malakh-Pines et al. (1981), where burnout between nurses, teachers, counsellors was compared with undergraduate students' burnout was found that students exhibit levels of burnout above the mean and higher levels of the scale, (Malakh-Pines et al., 1981). Nowadays, the increased demands of the student environment and the student role in conjunction with the important changes that occur during the transition period of their life are a reality. In particular, the transition from school to university is an important life event associated with a variety of emotional and social changes, (Brooks and DuBois, 1995; Pancer et al., 2000; Perry et al., 2001).

The question that may arise is how to determine the existence of the above parameters as well as their dimensions. Individuals in general and students specifically in order to respond to the emotional demands of their work can be led to emotional exhaustion. As a way of self-protection, they may distance themselves emotionally away from others in their quest to "save" emotional energy and choose not to invest in interpersonal relationships. Therefore, the above combination of emotional burnout and distance from the others can generate or fuel feelings of reduced personal achievement and academic incompetence (Kinman, 2014). Particularly first-year students may experience problems in adapting to the new environment, experiencing changes in their lives, and creating new interpersonal relationships with uncertainty (Hicks and Heastie, 2008).

In the study by Galán, Sanmartín, Polo, & Giner (2011) it was found that students' burnout is increasing throughout the years of study, (El-Masry et al., 2013; Galán et al., 2011). This finding is in line with Salmela-Aro & Read survey (2017) where the results showed a gradual increase in the level of students' burnout as the years of study increase. Also, gradual increase in burnout levels was observed both at university and at polytechnic school. Additionally, students who did not complete their studies at the minimum graduate time appear to have a higher degree of burnout due to the stressful situation. This can lead to cynical behaviour towards the importance of their studies and feelings of inadequacy in their student role, (Almeida et al., 2016; Salmela-Aro and Read, 2017). On the contrary, in a study carried out in Portugal in nursing students, higher rates of depression and anxiety have made their presence in the last year of study, directly correlated with student burnout, (Moreira and Furegato, 2013). Similarly, in Pagnin et al. (2013) research was found that cynicism levels are increasing over the years of study, while levels of academic efficiency are diminishing, (Pagnin et al., 2013).

Moreover, in the research by Muzafar et al. (2015) in medical students was revealed that the year of study is significantly correlated with students' burnout. In particular, medical students of older years experienced more burnout than students of earlier years. In the same line of argument, the research by Shaikh et al. (2004), (Shaikh et al., 2004), found that students of 4^{th} and 5^{th} year of study had a higher degree of anxiety and burnout compared to students of lower years, (Muzafar et al., 2015). A similar

finding was found for medical students in 3rd and 4th year of study compared to 1st and 2nd year students, (Wachholtz and Rogoff, 2013).

According to Jacobs & Dodd (2003) research students' burnout is higher at the beginning of the semester and not at the end. Also, students at the beginning of the semester noted higher levels of sense of personal accomplishment and awareness, (Jacobs and Dodd, 2003). Relying on the structural component that of personal accomplishment based on Michalec, Diefenbeck, & Mahoney (2013) research, statistically significant differences were found between 4th year students compared to 1st year and 2nd year students where the levels were significantly higher, (Michalec et al., 2013). The levels of stress recorded during the 1st year of study are typically higher than those recorded in the subsequent years and student residence rates appeared to be lower in the 1st year of study in comparison to the following years, (Parker et al., 2006). In addition, Cecil, McHale, Hart, & Laidlaw (2014) found that over 50% of earlier years students reported high levels of emotional burnout, and over 40% reported low levels of personal accomplishment. This means that a very large proportion of students are at high risk of burnout too early in their studies. However, with regard to the structural component of emotional exhaustion a reduction can be observed from the first to third year of study (Cecil et al., 2014). Though, in Ghali & Awooda survey (2013) there were no statistically significant differences found in burnout levels among students between their penultimate and final years of study, (Ghali and Awooda, 2013).

The Nikodijević, Labrović, and Djoković (2012) survey found that the risk of burnout was widespread among students in business and IT management in Serbia where almost 50% of the participants were at risk of burnout and more than 20% of them were are at high risk of burnout, (Nikodijević et al., 2012).In the work of Muzafar et al. (2015) was indicated that almost half of medical students had a high, moderate or very high degree of burnout. This is in agreement with other studies in medical students as in Dyrbye et al. (2006), (Dyrbye et al., 2006) where the corresponding percentage was 45%. In the Mazurkiewicz et al. (2012) research was stated that the rate of burnout in 3rd year medical students in New York was 71%, (Mazurkiewicz et al., 2012).

In this paper an attempt was made towards the investigation of the role of the year of studies and the university department on students' burnout syndrome with emphasis on the indirect correlations emerged. In Section 2 the methodological approach followed in this work is presented. In Section 3 the limitations of the present research are presented. In Section 4 the research findings are presented and commented. Section 5 includes the discussion of this work. Finally, Section 6 encompasses a synopsis of the findings, practical implications and ideas for future research are presented in.

2. METHODOLOGICAL APPROACH

For our research purpose a structured questionnaire was applied including the following thematic areas, (Georgiou et al., 2019; Georgiou and Androulakis, 2019a, 2019b): (a) Demographic data, (b) Elements of Student Life, (c) Elements of students' satisfaction, (d) Student Burnout Syndrome and (e) Elements of students' Emotional Intelligence. Most questionnaire items were based on the questionnaires: a) Maslach Burnout Inventory - Student Survey (MBI-SS), (Hu and Schaufeli, 2009; Schaufeli et al., 2002) b) Employee Satisfaction Inventory adapted to students; (Koustelios, 1991; Koustelios and Bagiatis, 1997), c) Trait Emotional Intelligence Questionnaire (TEIQue-SF), (Petrides, 2009), and d) the Self-Rated Emotional Intelligence Scale questionnaire, (Brackett et al., 2006).

The statistical population of this paper is the students at the University of Patras where at the period of the research had twenty four (24) Departments belonging to five (5) Schools. Specifically, (Πατρών, 2018):

(a) School of Engineering (5 year study)

- Department of Architecture (TAM), 1999, Patras
- Department of Chemical Engineering (TXM), 1977, Patras
- Department of Civil Engineering (TPM), 1972, Patras

- Department of Computer Engineering and Informatics (TMYHP), 1980, Patras
- Department of Electrical Engineering (THMTY), 1967 (renamed to Department of Electrical and Computer Engineering), Patras
- Department of Environmental Engineering (TDPFP), 1998, Agrinio
- Department of Mechanical Engineering (TMAM), 1972 (renamed to Department Mechanical Engineering and Aeronautics),Patras

(b) School of Economics and Business Administration (4 year study)

- Department of Business Administration (TDE), 1999, Patras
- Department of Business Administration of Food and Agricultural Enterprises[1] (TDEAP), 2004, Agrinio
- Department of Cultural Heritage Management and New Technologies (TDPPN), 2006, Agrinio
- Department of Economics (TECON), 1985, Patras

(c) School of Humanities and Social Sciences (4 year study)

- Department of Early Childhood Education (TEAPH), 1983, Patras
- Department of Primary Education (PTDE), 1983, Patras
- Department of Philology (TFLG), 1994, Patras
- Department of Philosophy (TFLS), 1999, Patras
- Department of Theatre Studies (TTHS), 1989, Patras

(d) School of Health Sciences

- Faculty of Medicine (TIAT) (6 year study), 1983 (initially as Medicine School in 1977), Patras
- Department of Pharmacy (TFAR) (5 year study), 1983 (initially in the School of Mathematics and Physics in 1977), Patras

(e) School of Natural Sciences (4 year study)

- Department of Biology (TBIO), 1966, Patras
- Department of Chemistry (TX), 1966, Patras
- Department of Geology (TGEO), 1977, Patras
- Department of Material Science (TEY), 1999, Patras
- Department of Mathematics (TMATH), 1966, Patras
- Department of Physics (TPHYS), 1966, Patras

The survey was conducted in December 2018. The questionnaire was answered by 582 students, weighted in terms of geographical distribution and representative of the departments of the University of Patras. All items used a 7-point Likert scale. The Cronbach a for the present study was 0.92.

The exploratory factor an analysis (EFA) was carried out because it has the advantage of application on objects under special conditions where researchers seek causal relationships between the observed variables in the light of latent variables, (Norris and Lecavalier, 2010)., There were revealed seven set of causes acting behind the factors of students' burnout syndrome, (Georgiou and Androulakis, 2019b, 2019d, 2019c, 2019a): (1) B1 physical-psychological exhaustion, (2) B2 efficacy and self-accomplishment of studies, (3) B3 cynicism - lack of interest for others, (4) B4 empathy – understanding

[1] 5 year study

others' feelings (5) B5 lack of interest in study and absenteeism, (6) B6 difficulty in working with others, (7) B7 depersonalization.

In our research in order to calculate the level of students' burnout syndrome "polytomous multidimensional item response theory (IRT) was applied", (Embretson and Reise, 2013; van der Linden and Hambleton, 2013). The most important property of IRT is the invariance property where the levels of the latent characteristic for the subject do not depend on which items are given to be answered and respectively the item parameters do not depend on a particular sample, (Embretson and Reise, 2013; Reise, 2014). In addition, individuals with different latent characteristics retain the same difference between their scores even if they answer different questionnaires with different scales, (Zanon et al., 2016). As a consequence, the findings of surveys evaluated with IRT can be compared to the findings of surveys with the same subject of research.

3. LIMITATIONS

As described in the previous section the survey was carried out in University of Patras and the sample was weighted in terms of geographical distribution and is representative of the departments of the university. During the collections of students' answers at the University of Patras certain schools such as Law, Agriculture, etc., did not exist and therefore were not represented.

4. RESULTS

From Fig. 1 and Table 1 can be noticed that the higher levels of average burnout can be met in the School of Engineering with an average of 5.65 and the lower levels in the School of Health with an average of 4.95 while the levels of average burnout in the School of Humanities and Social Sciences that are 5.21 are below the average of the University of Patras that is 5.41. Based on the findings of work (Georgiou et al., 2019; Georgiou and Androulakis, 2019a, 2019b) it can be noticed that in students' burnout psychological causal factors play a central role. Focusing on the Departments, we notice that the highest average levels for students' burnout are shown in the Department of Cultural Heritage Management and New Technologies with an average of 6.22 and the Department of Environmental Engineering with an average of 5.93, departments with the most obscure labour rights.

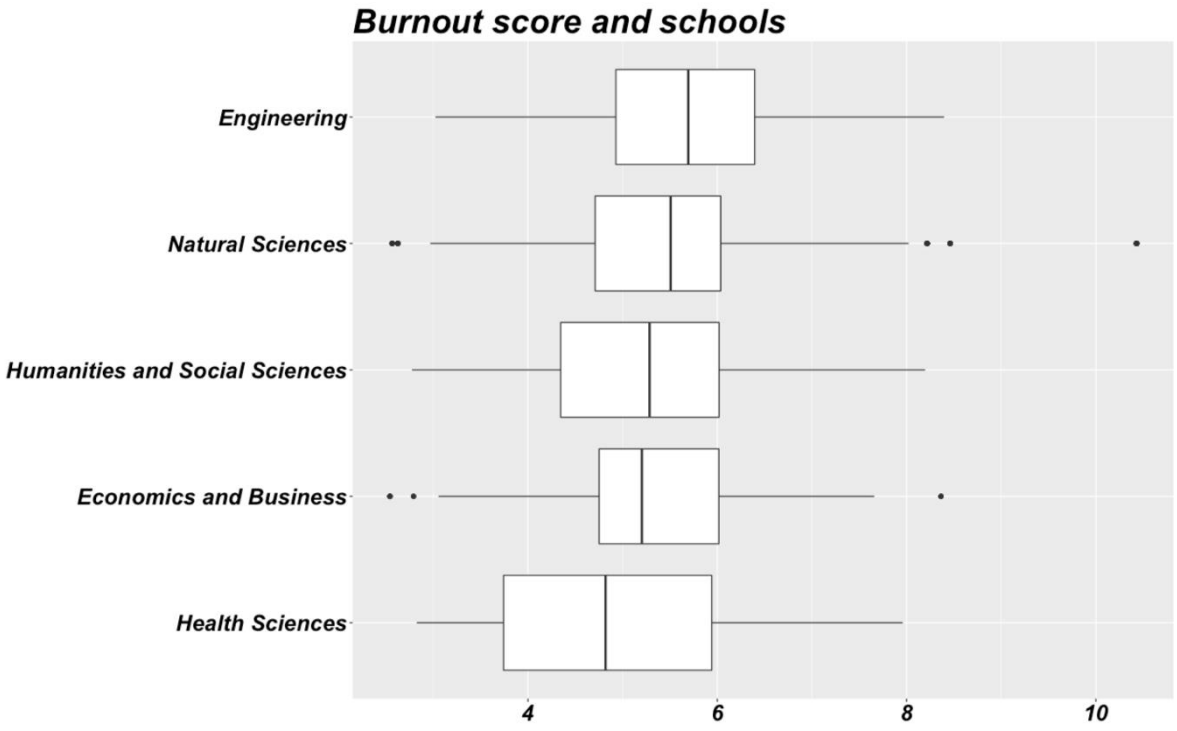


Fig. 1. Levels of burnout of students per School at the University of Patras.

	mean	sd	skew	kurtosis	p-value
University of Patras	**5.41**	**1,19**	**0.28**	**0.59**	**0.00**
School of Economics and Business	**5.38**	**1.03**	**0.10**	**-0.16**	**0.00**
Department of Business Administration	5.40	1.08	-0.13	-027	0.37
Department of Business Administration of Food and Agricultural Enterprises	5.15	0.48	0.88	-1.03	0.06
Department of Cultural Heritage Management and New Technologies	6.22	0.95	0.16	-1.57	0.00
Department of Economics	5.28	1.13	-0.17	-0.75	0.54
School of Engineering	**5.65**	**1.12**	**-0.01**	**-0.57**	**0.00**
Department of Architecture	5.58	1.11	0.70	0.35	0.00
Department of Chemical Engineering	5.08	0.89	0.78	1.09	0.01
Department of Civil Engineering	5.56	1.15	0.02	-0.57	0.01
Department of Computer Engineering and Informatics	5.48	1.10	0.39	-0.66	0.04
Department of Electrical and Computer Engineering	5.90	1.05	-0.57	-0.13	0.00
Department of Environmental and Natural Resources Management	5.93	1.36	-0.35	-1.45	0.00
Department Mechanical Engineering and Aeronautics	5.92	1.00	-0.98	1.70	0.00
School of Health Sciences	**4.95**	**1.28**	**0.07**	**-0.87**	**0.00**
Faculty of Medicine	5.04	1.09	-0.03	-0.64	0.00
Department of Pharmacy	4.81	1.25	0.2	-1.23	0.00
School of Humanities and Social Sciences	**5.21**	**1.16**	**0.3**	**-0.3**	**0.00**
Department of Early Childhood Education	4.77	1.13	0.69	0.66	0.00
Department of Primary Education	5.32	1.32	0.56	-0.77	0.00
Department of Philology	5.17	1.03	-0.10	-0.70	0.08

Department of Philosophy	5.53	0.91	-0.16	-0.85	0.03
Department of Theatre Studies	5.41	1.18	-0.03	0.30	0.44
School of Natural Sciences	**5.46**	**1.28**	**0.9**	**2.88**	**0.06**
Department of Biology	5.42	1.32	2.11	5.74	0.33
Department of Chemistry	5.34	0.79	0.29	-0.67	0.84
Department of Geology	5.34	1.93	0.33	-0.86	0.84
Department of Material Science	4.99	0.95	-0.71	-0.03	0.00
Department of Mathematics	5.53	0.88	-1.36	2.38	0.01
Department of Physics	6.01	1.91	0.75	0.18	0.00

Table 1. Indices of univariate analysis (mean value, standard deviation, kurtosis and asymmetry) of students' burnout levels by School and Department at the University of Patras

As can be seen from Table 2, the lowest average student burnout levels appeared in the 1st year of study with an average of 5.14 while the highest levels appeared in the 3rd year of study with an average of 5.77. It is also noteworthy that during the last year of study there is a slight decrease in the mean value of the level of burnout and therefore the pick of levels of burnout occurred during the prefinal year of study.

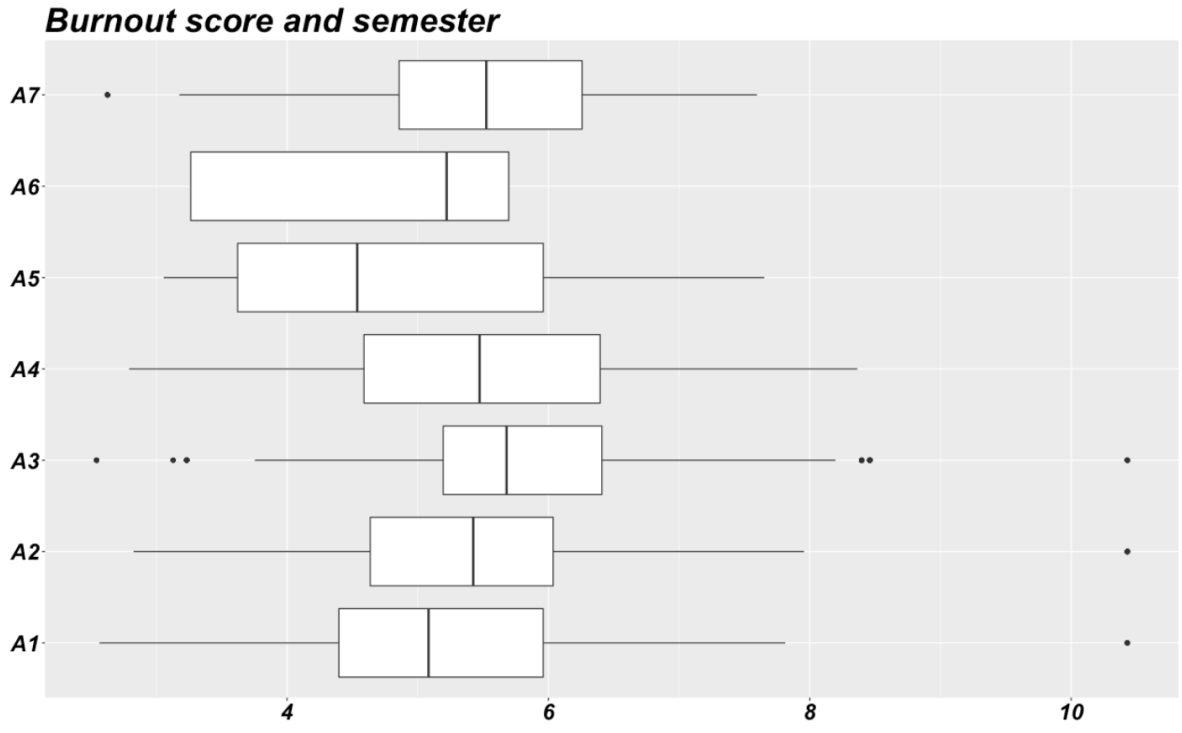


Fig. 1. Students' burnout boxplots per year of study at the University of Patras

	mean	sd	skew	kurtosis	p-value
University of Patras	**5.41**	**1.19**	**0.28**	**0.59**	**0.00**
1st year (A1)	5.14	1.18	0.61	1.91	0.00
2nd year (A2)	5.39	1.12	0.48	1.44	0.00
3rd year (A3)	5.77	1.11	0.49	1.63	0.00
4th year (A4)	5.50	1.25	0.09	-0.53	0.00
5th year (final year for polytechnic and pharmacy and prefinal for medical school) (A5)	4.83	1.31	0.57	-0.71	0.00
6th year (final year for medical school) (A6)	4.71	1.12	-0.48	-1.72	0.01
Extensive year of study (A7)	5.48	1.12	-0.25	-0.53	0.00

Table 2. Indices of univariate analysis (mean value, standard deviation, kurtosis and asymmetry) of students' burnout levels per year of study at the University of Patras

5. DISCUSSION

Regarding the effect of the year of study on students' burnout the anova test resulted in p-value of less than 0.0001 and therefore research question 1 was rejected.

Research Question 1: Burnout levels of students are the same regardless of the year of study

The effect of the year of study on the change in the level of students' burnout was found to be 4.40%.

In our research a positive correlation emerged between students' burnout and year of study. In particular, there is a positive correlation in the first years of studies with a peak in the penultimate year while in the following year there is a slight decline of burnout.

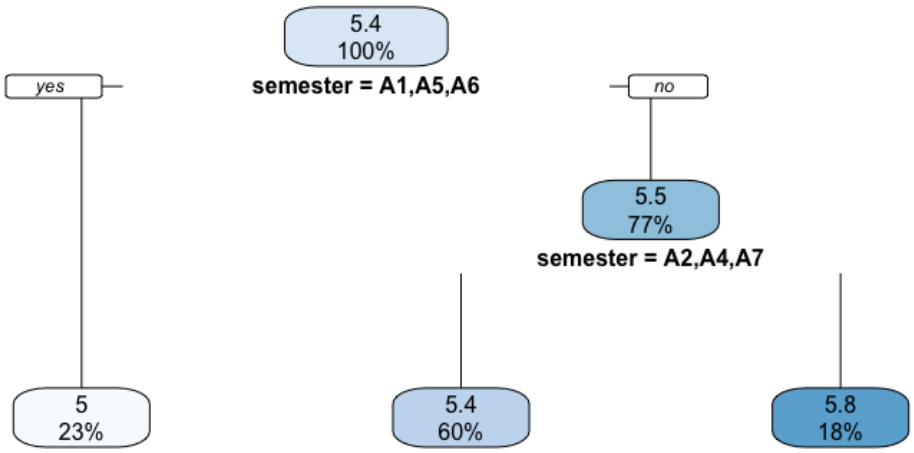


Fig. 2. Hierarchical regression tree of students' burnout per year (=semester) of study

In order to examine all the possible individual interactions of the factor "year of studies" in the students' burnout level hierarchical regression tree was applied, (Breiman, 2017; Breiman et al., 1984). Note that the number inside the eclipsis refers to the mean values of students' burnout for the particular branch or leaf. The number under the eclipsis refers to the percentage of the student sample corresponding to the branch or leaf. When the indicated condition is true, we are led to the left branch.

The hierarchical regression tree of Fig. 3 confirms that for the 18% of the student population in the penultimate year (A3 is the only value not appeared under the conditions) of study the average level of burnout is 5.8.

In order to examine how the year of study mediates its effect on student's burnout syndrome via the groups of causes emerged by EFA, simple regressions were applied. The conclusions are discussed below and in parentheses the R^2 coefficient of regression is shown for each case. Therefore, the year of study as a factor of effect on students' burnout mediates its effect through B1 set of causes physical and psycho-emotional exhaustion (5,70%), B2 efficacy and self-accomplishment of studies (5,10%) and B5 lack of interest in studies (4.90%). The basis of interpretation is conceptually based on the logic that each year of study is related to a different type and level of requirements and therefore with a different kind of pressure on the psycho-emotional level for the student but also on the level of academic goals achievement.

In the literature, there is an additional reflection on the impact of the year of studies and the age of students on students' burnout based on the fact that they both grow at the same time. In our survey there was a question about the year of study but also a question about the year of birth. From the anova test regarding the effect of the year of birth there was no statistically significant primary effect emerged. But when the age of the student was combined with his/her year of study it showed a statistically significant interaction (p-value less than 0.0001). Therefore, the combination of the year of study with the age of the student creates variations in student's burnout.

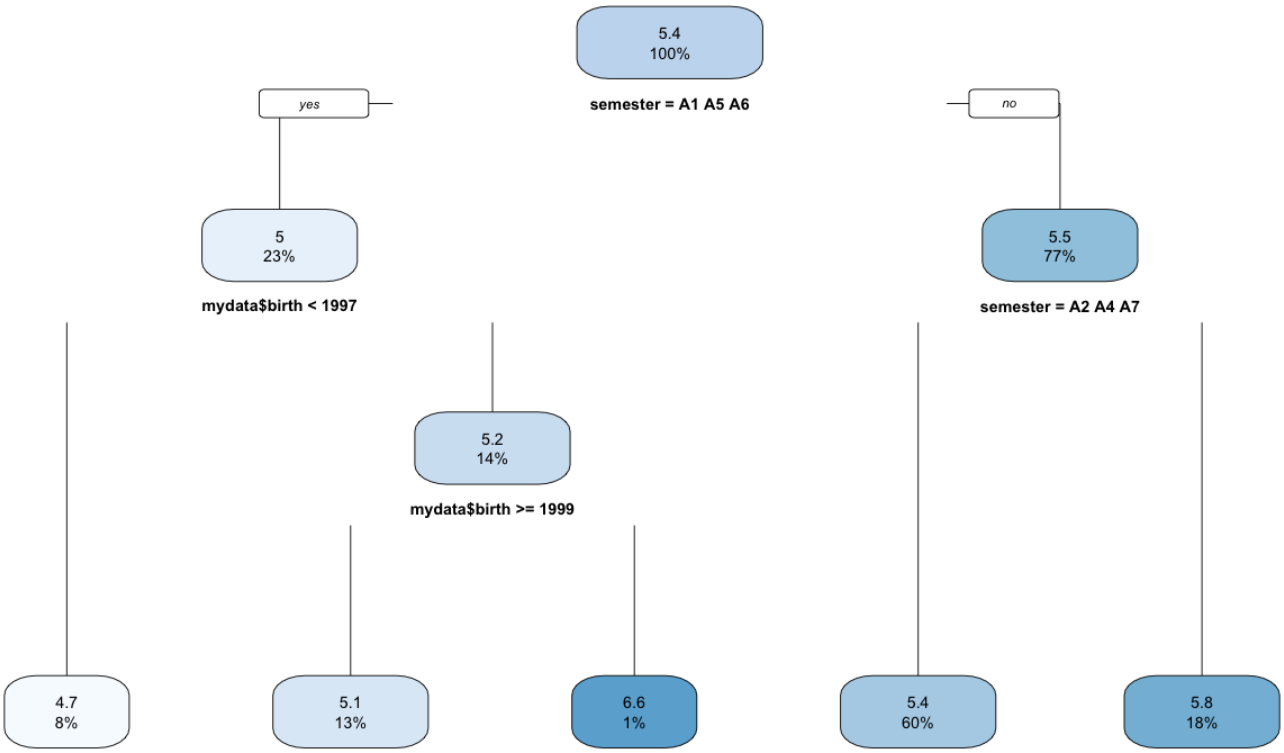


Fig. 3. Hierarchical regression tree of students' burnout per year of study and student year of birth

From the hierarchical regression tree of Fig. 4 the interaction of the year of study and students' year of birth leads to increased levels of burnout (6.6) for students of the 1st year and for students who have students who have extended the graduation year. An interpretation that can be given for this is that the 1st year of study and the graduate years have particular characteristics with particular effect on students' life such as the transition period and respectively the acquisition of the degree.

As for the contribution of the age finding, it adds to the concern about its correlation with students' burnout as in certain researches this correlation was questioned or not found, i.e. researches by Parker et al. (2006) and Costa et al. (2002).

We recall that in contradiction to the literature where first-year students are more prone to emotional exhaustion, Cordes & Doughertty (2003), Michalek et al. (2013), Cecil et al. (2014) and surveys where the levels of burnout in the first year of study are higher than those of the following years (Parker et al., 2006, Cecil et al., 2014) and compared with surveys such as Ghali & Awooda (2013) where there were no statistically significant differences between the penultimate and last year of study, the findings of this research suggest that there exists an ascending trend in the levels of burnout of students over time. This ascendant direction confirms the results of other surveys such as Galan et al. (2011); El-Masry et al. (2013), Salmela-Aro & Read (2017), Muzafar et al. (2015), Moreira & Furegato (2013), Pagnin et al. (2013) where an increase in students' burnout occurs over the years of study. However, based on our results it was found that specifically the gradual increase in burnout peaked in the penultimate year of studies and declined in the final year of study.

From the anova test on whether the university School faces differences in students' burnout levels, the p-value was much lower than 0.0001 leading to the rejection of the research question 2.

Research Question 2: Students' burnout levels are the same regardless of the school of study

The effect of the university School of study on the change in burnout levels is 3.5% is mediated through all the set of causes of students' burnout almost on the same way and on the same percentage.

As mentioned before higher levels of burnout appeared to students of the Polytechnic School and the lower in the School of Health (4.95). As far as the Polytechnic School is concerned our research findings are in line to the Salmela-Aro & Read survey (2017) where polytechnic school students showed higher levels of cynicism while university students had higher levels of academic accomplishment. Moreover, a statistically significant difference between levels of burnout of university students with those of polytechnic students did not appear in Salmela-Aro & Read survey (2017). Concerning the burnout levels in the School of Health, researches such as those of Muzafar et al. (2015), Dyrbye et al. (2006), Mazurkiewicz et al. (2012) support the high degree of burnout in medical students. The results of our research were surprising at this point because the correlation between studying in health school and high levels of student burnout was found weak. However, a possible interpretation of this is that focusing on the comparative study of students' burnout among university faculties and departments may be of importance.

Regarding the effect of the university department on students' burnout the anova test gave a p-value less than 0.0001 and therefore the research question 3 is rejected.

Research Question 3: Students' burnout levels are the same regardless of the university department

The percentage of the effect of university departments on the change of students' burnout was 8.0%. By examining the mediation of the department's effect on student burnout it can be noticed that it occurs via the set of causes B2 effectiveness and self-accomplishment of studies (12,20%), B5 lack of interest in studies and absenteeism (10,80%), B6 difficulty in working with others (10,60%) and B3 lack of interest in others - cynicism (10,50%).

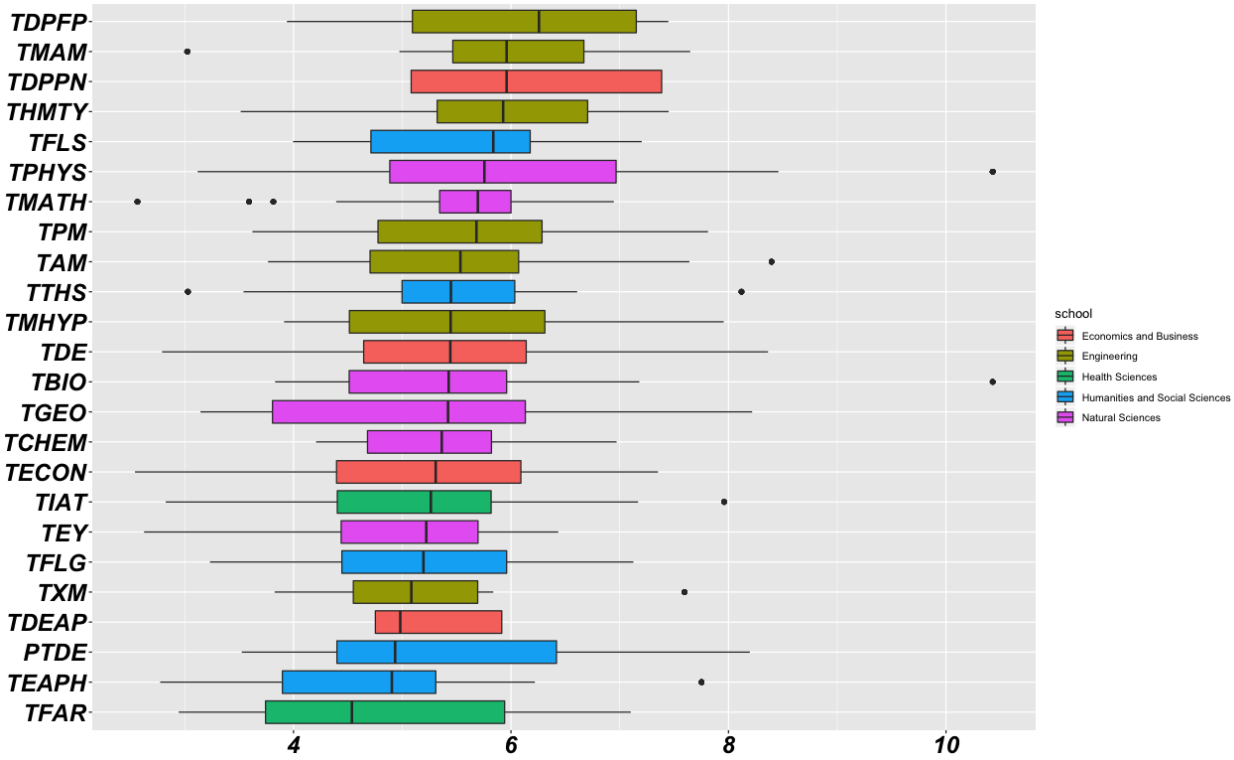


Fig. 4. Students' burnout boxplots per university department

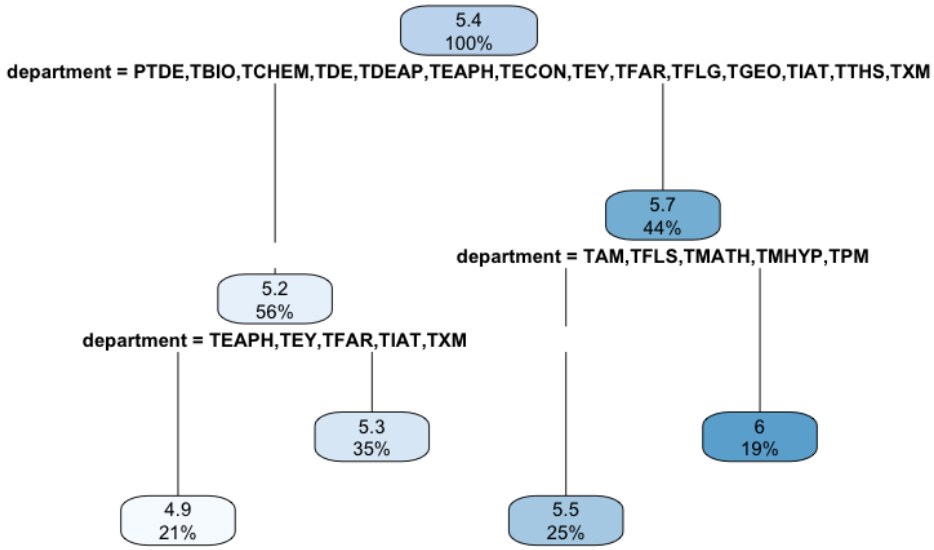


Fig. 5. Hierarchical regression tree of students' burnout per university department

Focusing on the hierarchical regression tree of Fig. 6 we find that the highest average (6.0) of burnout is represented by the Departments of Environmental Engineering (TDPFP), the Cultural Heritage Management and New Technologies (TDPPN), the Electrical and Computer Engineering (THMTY), Architecture (TAM) and Physics (TPHYS), while the lowest (4.9) in Early Childhood Education (TEAPH), Materials Science (TEY), Pharmacy (TFAR), Medicine (TIAT) and Chemical Engineering (TXM).

At this point, it should be stressed that increased research into the anthropocentric professions has prompted researchers to focus on the respective departments when studying students' burnout. As we

noticed, the influence of the university department on students' burnout is mediated by the group of causes that are mainly linked to the aim of the degree acquisition. Therefore, focusing on the student's target and its parameters could be essential when examining student burnout.

6. CONCLUSIONS AND FURTHER RESEARCH

In this paper an attempt was made to examine the role of the university department and the year of study in students' burnout syndrome. In this regard the answers of 582 students of the University of Patras were analysed on the methodological basis described above. From the analysis of the impact of the department and the year of study on the burnout syndrome the following conclusions were reached:

- Higher levels of average burnout of students appear in the Polytechnic School while the lower ones in the School of Health.
- Mean burnout levels at the School of Humanities are below the average of the University of Patras.
- Higher averages for students' burnout occur in the Department of Cultural Heritage Management and New Technologies and in the Department of Environmental Engineering.
- The lowest average values of students' burnout appeared in the 1st year of study.
- The highest average valued of students' burnout appeared in the 3rd year of study.
- During the last year of study there appeared a slight decrease in the average level of students' burnout.

Moreover, the role of the university department upon students' burnout syndrome is obvious and is exerted via students' effectiveness and self-accomplishment of studies, students' lack of interest in studies, students' difficulty in cooperating with their fellow students and tutors and students' lack of interest in the other people within the academic environment. In addition, the effect of the university school of study on the change in the students' burnout level is mediated through all the set of causes of students' burnout almost on the same way and on the same percentage. It is noteworthy that studying in Health School and the high levels of students' burnout in our study appeared weak correlation. A possible interpretation of this is the comparative context among university faculties and departments. In addition, it seems of importance when studying students' burnout to focus in detail on students' target as it emerged that it plays a central role on the levels of students' burnout.

Under the spectrum of future research emphasis could be placed on all university departments especially those of the polytechnic school that arise from our research having a higher average degree of burnout and also on the comparison between university and polytechnic departments.

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