

The syndrome of burnout, self-image, and anxiety with grammar school students

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Abstract: This article discusses certain characteristics of teenagers experiencing burnout and the influence of some dimensions of self-image and anxiety on the burnout dimensions. The research investigated the relation between anxiety, dimensions of self-image and the burnout syndrome. The data were obtained applying the modified Maslach Burnout Inventory (MBI), the Spielbergs' questionnaire of trait anxiety and Offer Self-Imagination Questionnaire. The sample comprised 1868 students aged between 15 and 19; 6.7 percent of them turned out to have suffered a strong burnout. The results proved that the burnout syndrome appears in several different levels of intensity also among adolescents attending secondary school (grammar school programme). True multivariate analysis the two basic hypotheses were confirmed: the adolescents with negative self-image areas are more likely to suffer from burnout and that certain dimensions of self-image influence certain dimensions of burnout.

Key words: burnout, self-image, anxiety, high-school students

Sindrom izgorelosti, samopodoba in anksioznost pri gimnazijcih

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Povzetek: Besedilo obravnava sindrom izgorelosti pri srednješolcih (gimnazijcih) in vpliv nekaterih dimenzij samopodobe in anksioznosti na posamezne dimenzije izgorelosti. Podatke za raziskavo smo dobili s pomočjo prirejenega vprašalnika MBI (The Maslach Burnout Inventory), Spielbergovega vprašalnika potezne anksioznosti in Offerjeve lestvice Self-Imagination Questionnaire. V raziskavi smo zajeli 1868 srednješolcev starih od 15 do 18 let, od teh je izkazalo visoko stopnjo izgorelosti 6.7 odstotkov gimnazijcev. Rezultati so pokazali, da se sindrom izgorelosti pojavlja v različnih stopnjah jakosti med srednješolsko mladino, ki obiskuje gimnazijski program. Rezultati multivariantne analize so potrdili tudi dve temeljni predpostavki, da imajo mladostniki z visoko stopnjo izgorelosti negativno samopodobo na posameznih področjih v primerjavi z ostalimi mladostniki ter da nekatere dimenzije

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samopodobe vplivajo na dimenzije izgorelosti.

Ključne besede: izgorelost, samopodoba, anksioznost, srednješolci

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Burnout may be defined as a state of physical, emotional and mental exhaustion that results from long-term involvement with people in situations that are emotionally demanding (Pines & Aronson, 1981). The concept of burnout is usually mentioned in connection with workplace stress, especially in professions that involve extensive contact with people in emotionally demanding situations (nurses, doctors, teachers, social workers, managers, etc.). Yet we can also speak about burnout when referring to students. Why?

School is essentially a conflictive institution, where various relations are formed among peers as well as among students and teachers. For a student it is a social space, the meaning and the effects of which are placed immediately after those of the family (Kos, 1993). In the first place school represents a stimulative environment where students can fulfil their needs and interests, develop their social skills, acquire knowledge, etc. It is however also a place where an ongoing confirmation of one's own skills and knowledge is required. In the same way as other social environments school, among other things, also produces numerous threatening and negative occurrences, which at times concern most students (Kos, 1993). Maslach (Maslach & Leiter, 1997) described six most significant and frequent reasons for burnout. These are: work overload, lack of control over one's work, lack of reward for contributions, lack of community, lack of fairness and a value conflict. Let us take a look at the more important threatening occurrences that can cause burnout in schools:

1. With its constant productiveness demands school is overtaxing students with schoolwork wherefore a feeling of overburdening of youngsters during schooling increases. The Slovene secondary school system (gymnasia programme) is still overloaded with school demands such as overloaded syllabus at certain subjects, too many subjects (Slivar, 2000), external assessment (matura), performance pressures (achieving the best grade, be the best in the class) that accumulate in the course of years. Bečaj (Bečaj, 2000) has found that there is a strong connection between matura and the overproductive school climate in grammar schools. Students are overloaded and alarmed by matura and the pressure to achieve the best possible results (Bečaj, 2000). Tomori (Tomori, Stergar, Pinter, Rus-Makovec & Stikovič, 1998) studied a sample of students and found that the majority of students experience temporary or frequent overtaxing. The feeling of being overloaded provokes psychosomatic symptoms. Bencik Murko (1988) states in the research on psychosomatic symptoms in students

that psychosomatic symptoms strongly correlate with overtaxing (30 % of secondary school students have psychosomatic symptoms). Lovšin (Lovšin et al., 1988) found that in secondary schools in Ljubljana as much as 60 % of students have school related psychosomatic problems. Students have to do a lot of work in a relatively short time and with limited resources. Great expectations of parents, the youngster's aspirations and the school demands present a constant pressure and the least of failures can cause distrust in one's own abilities.

2. Reduced opportunities of control over teaching, few opportunities for creativity, and active participation in the problem solving, no participation in the planning and decision making regarding the teaching and learning methods (Ilc-Rutar, 2000).
3. There is not enough incentive and praise for well-done work although we know that rewards and incentives are of great importance for motivation and progress. Schools also do little to encourage internal rewarding manifested as pride or satisfaction of the knowledge and success, which is not directly linked to the grade.
4. Lack of suitable interpersonal relations. These are mostly events arising from exclusion by peers (conflicting relations with peers), accusations of adolescents by teachers (negative emotions of one or more teachers directed personally toward the student), or disturbances and disputes of a more general character within school (disputes and disturbances among teachers, lack of work discipline).
5. Mostly due to expectations by significant others (family members), many students live in fear of failure, criticism for lack of success or unpleasant consequences in general. They experience school as a threat where injustices often happen to individuals, for example in assessment. Students who pay regard to school demands on the one side, while on the other side they feel fear or opposition to them, will find themselves in a conflicting situation. School can also cause feelings of fear, for example fear of being assessed, to which students react differently. School related fear may lead to absenteeism (Pušnik, 1998).
6. There are often clashes of values in school, mostly between the values of the student's family and the school values, but also between the values of the youth and those of the teachers (i.e. about learning, the meaning of knowledge...).

With their long-term effects, these factors of school stress can also cause the burnout syndrome with certain individuals, who can start feeling overburdened, unsuccessful and feel that they do not have enough control over the events in school.

Important determinants of burnout are also character traits. From the ones that significantly influence the appearance of burnout we took a closer look at the

role and significance of self-image and anxiety. Self-image is an attitude component of "Self as known" or "Me" (Burns, 1982) and it means the individual's description of the self. The part of self image are commitments and beliefs, which are very important in cognitive appraisal processes of the situation (Epstein, 1976; Hilgard, 1949). For Kobasa (1985) the coping ability is determined with individual's self image, it is the part of individual's self awareness or self confidence. A positive self-image is among other things connected with psychological adaptedness and emotional stability, greater activity and the feelings of greater psychic power, increased resistiveness to negative feedback, positive emotional states etc. These are at the same time also factors that play an important role in the experiencing of stress and burnout, respectively. Fear and anxiety are two other negative emotions that contribute to burnout (Maslach, 1997). In some researches (e.g. Richardsen, Burke & Leiter, 1992) it was established that anxiety foretells all three components of burnout. Frequent emotional exhaustion was also linked to higher anxiety.

The basic goals of this study are:

- the determination of the incidence of burnout among secondary school students and the possible connection of this phenomenon with gender and some school factors (school performance, number of students, absenteeism),
- the analysis of the relative influence of individual dimensions of self-image and anxiety in the predictions of individual dimensions of burnout, and
- the establishment of the dimensions of self-image that are important for distinguishing between the group with burnout experience and the group with no such experience.

Method

Participants

14 grammar schools were included in the sample. The choice was accidental, however the school region and the number of students at school were taken into consideration. At small grammar schools (up to four classes of first year students) one class of students of each year was included into the research. At large grammar schools (five or more classes of first year students) two classes of each year were included into the research. In this way, 2105 students participated. The analysis included 1868 secondary school students of all four years of Slovene gymnasiums, aged from 15 to 18 years. The sample contains 58,3 % of girls and 41,7 % of boys.

Instruments

A) Self-image

The questionnaire used in the study was the Offer Self-image Questionnaire – OSIQ. The adaptation of the questionnaire was carried out by Pačnik and Zalar (1986). It incorporates five images of the self, three of which were relevant for us and thus included in the research (excluded were the Social Self and the Sexual Self):

1. Psychological Self (PS)

The Psychological Self comprises the adolescents' concerns, feelings, wishes, and fantasies. The scales that constitute this self deal with the teenagers' sense of control over impulses, the emotions and conceptions of their bodies. The three relevant OSIQ scales are as follows: Impulse Control, Emotional Tone and Body Image.

2. Familial Self (FS)

The feelings and attitudes teenagers have toward their families are crucial for their overall psychological health. Barring extreme circumstances, the family will contribute more to the development of adolescents than any other psychosocial influence. The following scale is used: Family Relationships.

3. Coping Self (CS)

The scales constituting this aspect of the self measure the psychiatric symptoms the adolescents say they have, if any; they also allow the adolescents to describe how they cope with the world. The three relevant OSIQ scales used are as follows: Mastery of the External World, Psychopathology and Superior Adjustment.

The OSIQ questionnaire enables a multidimensional reflection of the self which incorporates the everyday experiences of teenagers. Internal reliability coefficients for all scales ranged between 0,53 to 0,87. In our case it contains 121 items in the form of a 6-point Likert-type scale and is intended for youngsters between the ages of 13 and 19. It was originally constructed by Daniel Offer in 1962.

B) Anxiety

The questionnaire used for the evaluation of the anxiety level was the Spielberg trait anxiety questionnaire, which contains 20 items (Lamovec, 1994). The internal reliability coefficient for the scale is 0,88.

C) Burnout

Burnout was measured with the Maslach Burnout Inventory (MBI; Maslach & Jackson, 1986). The MBI is a 22-item measure which produces three scores: Emotional Exhaustion, Depersonalisation and Lack of Personal Accomplishment. Emotional exhaustion caused by exaggerated demands with which students are faced at their school work is demonstrated through the feeling of being overloaded and exhausted. Depersonalisation is a state in which one employs cynical, underestimating and impersonal attitude towards other people. Lack of Personal Accomplishment is demonstrated through the feeling of ineffectiveness and the loss of competence (Penko, 1994).

Some items were adjusted to the school environment terminology; the questionnaire has an adequate internal validity, the Cronbach alpha is 0,72.

Although burnout can be regarded a continuous variable which is supposed to vary from a minor to a greater burnout, a high score was regarded as such if it was in the upper third of the result distribution on individual sub-scales of Emotional Exhaustion and Depersonalisation, and in the lower third on the sub-scales of Personal accomplishment (Rafferty, Lemkau, Purdy & Rudsill, 1986).

Statistical treatment

The relationship between burnout and gender and school factors was established by chi-square.

Direct effects: stepwise multiple regression procedures were used for each dimension of burnout. The self-images variables and anxiety were regressed in combination in order to test the overall effect. The measure of differentiation between groups as regards the scale of burnout was established with the aid of logistic regression.

Results

It was established that 6,8 % of gymnasium students in our sample have experienced a high degree of burnout. Results have shown that girls are experiencing burnout more than boys: 72,1 % of girls and 27,9 % of boys (chi-square=10,25; p=0,00). Girls tend to experience especially emotional exhaustion.

The average academic success of the youngsters with a manifested burnout tends to be a bit lower, in average sufficient to good. We presume that these are essentially hard working and diligent students who are experiencing burnout due to overburdening school demands and pressures. We were also interested whether the youngsters experiencing burnout are missing classes. The results show that students that have experienced burnout are absent more school hours per year than their

Table 1: Influence of absenteeism from school on dimensions of burnout: emotional exhaustion, depersonalisation and personal accomplishment (analysis of variance table).

		Sum of Squares	df	Mean Square	F	Sig.
Emotional Exhausted	Between Groups	3000,870	2	1052,435	13.212	0.000
	Within Groups	212075,141	1865	113,713		
	Total	215080,010	1867			
Depersonal.	Between Groups	381,684	2	190,842	7.707	0.000
	Within Groups	46183,329	1865	24,763		
	Total	46565,013	1867			
Personal Accomplishment	Between Groups	321,485	2	160,742	2.940	0.053
	Within Groups	101981,029	1865	54,682		
	Total	102302,514	1867			

peers with no burnout. Students with burn out are absent on average 63 hours per year, students with no burn out are absent 48 hours per year (the difference is statistically significant, $t\text{-test}=-3,24$; $p=0,00$).

The analysis of variance (Table 1) for three groups of students (low absenteeism, average absenteeism, high absenteeism) has also shown that absenteeism is enhanced by emotional exhaustion and depersonalisation. of students.

Fuelled by some research results confirming a higher degree of estrangement between students and teachers, and more careless relationships between students in larger schools (Lovšin et al., 1988), we assumed that the portion of youngsters experiencing burnout would be greater there. The results however did not confirm this presumption since there is no significant correlation between the share of burnout-affected youngsters and the size of the school.

II. (??? - tukaj bi lahko avtor kaj dopisal...pa se malce nedosledno je, ker ni nikjer videti I.)

Further on we were interested in the relative influence of individual dimensions of self-image and anxiety in the prediction of the particular dimension of burnout. Thus we first analysed the influence of individual dimensions of self-image and anxiety on Depersonalisation and established that the interrelation is low yet statistically important, the highest being the one with anxiety (0,31). The correlation of the psychological self dimensions with depersonalisation is within in the range between 0,22 and 0,28, while the correlation of the coping self dimensions lies between 0,10 and 0,24. The correlation between depersonalisation and family relationships lies at 0,26. Incorporated in the model with the help of the multiple regression analyses are all dimensions of self-image and anxiety as dependent variables and depersonalisation as the independent variable.

Of the 8 variables included 6 contribute significantly to the clarification of

depersonalisation (Table 2). The multiple coefficient of the correlation (R) between depersonalisation and the chosen variables lies at 0,34; the determination coefficient ($R^2=0,11$) is low yet statistically significant ($F=20,06$; $p=0,000$).

We have determined that the independent variables included in the regression model account for 11 percent of depersonalisation. Family relationships among the self-image dimensions and anxiety are the most important contributing factors to the above percentage. Of the three dimension of the psychological self, impulse control has the greatest influence, and of the three dimensions of the coping self, superior adjustment plays the most important role. Psychopathology and mastery of the external world do not play an essential role and were not incorporated into the model.

The next step was to analyse the influence of the individual dimensions of self-image and anxiety to lack of personal accomplishment. The interrelations are negative and low yet statistically important, the highest being the correlation with anxiety (-0,38). The correlation of the dimensions of the psychological self with personal accomplishment ranges from -0,28 to -0,36, the correlation of the dimensions of the coping self ranges from -0,30 to -0,37 and the correlation between personal accomplishment and family relationships is -0,27. With the help of the multiple regression analyses we have included all dimensions of self-image and anxiety as independent variables and lack of personal accomplishment as the dependent variable.

Of the 8 variables included 6 contribute significantly to the clarification of the lack of personal accomplishment (Table 3). The multiple coefficient of correlation (R) between depersonalisation and the chosen variables is 0,45; the determination coefficient ($R^2=0,20$) is low yet statistically significant ($F=58,08$; $p=0,000$).

We have established that the independent variables included in the model account for 20 percent of lack of personal accomplishment. The most significant contributor is anxiety and of the dimensions of self-image the coping self has the greatest influence (the most important part being superior adjustment). In addition to the above mentioned factors family relationships and emotional tone also influence the lack of personal accomplishment while impulse control and body image do not play an essential role and were not incorporated into the model.

Lastly we analysed the influence of the individual dimensions of self-image and anxiety to emotional exhaustion. The interrelations are of medium values and

Table 2: Multiple regression analyses predicting depersonalisation from anxiety, family relationships, impulse control, superior adjustment, psychopathology, emotional tone.

<i>Model</i>	<i>R²</i>	<i>Δ R</i>	<i>F Change</i>	<i>Sig. F Change</i>
anxiety	,078	,078	157,43	,000
family relationships	,095	,018	37,12	,000
impulse control	,101	,007	13,58	,000
superior adjustment	,104	,003	6,52	,011
psychopathology	,107	,003	6,77	,009
emotional tone	,111	,005	11,02	,001

Table 3: Multiple regression analyses predicting personal accomplishment from anxiety, superior adjustment, mastery of the external world, psychopathology, family relationships and emotional tone.

<i>Model</i>	<i>R²</i>	<i>Δ R</i>	<i>F Change</i>	<i>Sig. F Change</i>
anxiety	,141	,141	304,26	,000
superior adjustment	,176	,035	79,41	,000
mastery of external world	,183	,007	16,68	,000
psychopathology	,189	,006	12,88	,000
family relationships	,195	,007	15,11	,000
emotional tone	,200	,004	10,42	,001

statistically important, the highest being the correlation with anxiety (0,56). The correlation of the dimensions of the psychological self with emotional exhaustion ranges from 0,39 to 0,48, and the correlation of the dimensions of the coping self ranges from 0,28 to 0,45. With the help of the multiple regression analysis we have included all dimensions of self-image and anxiety as independent variables and emotional exhaustion as the dependent variable.

Of the 8 variables included 3 contribute significantly to the clarification of emotional exhaustion (Table 4). The multiple coefficient of correlation (R) between depersonalisation and the chosen variables is 0,56; the determination coefficient ($R^2=0,31$) is low yet statistically significant ($F=105,51$; $p=0,000$).

We have established that the independent variables included in the model account for 31 percent of emotional exhaustion. The most significant contributor is anxiety and of the dimensions of self-image impulse control has the greatest influence. In addition to the above factors mastery of external world also influences emotional exhaustion while other dimensions of self-image do not play an essential role and were not incorporated into the model.

III.

This study was aimed at the establishment of differences between a group of youngsters that did experience burnout and those that did not experience it as regards the dimensions of self-image and trait anxiety. The logistic model included all dimensions of self-image and trait anxiety as independent variables and two groups of youngsters as to the (non) experience of burnout as the dependent variable. Negelkerke value,

Table 4: Multiple regression analyses predicting emotional exhaustion from anxiety, impulse control and mastery of the external world.

<i>Model</i>	<i>R²</i>	<i>Δ R</i>	<i>F Change</i>	<i>Sig. F Change</i>
anxiety	,291	,291	762,03	,000
impulse control	,306	,015	40,76	,000
mastery of the external world	,310	,005	12,43	,000

which is comparable to the R^2 , is 0,25. Of the 8 dimensions included four have a significant effect on the differences between the two groups. The group of youngsters that did experience burnout is differentiated from the other group by the following dimensions: trait anxiety, family relationships, impulse control and mastery of the external world. The most contributing dimension is anxiety, followed by dimensions of self-image: family relationships, mastery of the external world and impulse control.

Conclusions

The study represents a contribution to the analysis of burnout with adolescents. It is however necessary to emphasise that the gained results have to be used with a certain measure of cautiousness. The reasons therefore are especially: the restricted methodology used (i.e. measures of self report), the choice of personality traits and their respective measurement (i.e. reduced inventories – OSIQ) and omission of other potential antecedents (i.e. locus of control, self esteem).

The results have confirmed that self-image and anxiety are connected with the appearance of burnout. Compared to the dimensions of self-image it is necessary to emphasise the high predictive value of trait anxiety in the prediction of burnout while, on the other hand, various dimensions of self-image predict individual dimensions of burnout in various ways. Of the three dimensions of burnout emotional exhaustion is best explained with the dimensions of self-image and anxiety, while the depersonalisation sub-scale is explained worst.

The results for emotional exhaustion are not surprising; as was already mentioned anxiety plays the most important role in emotional exhaustion, the role of school also having great importance in this issue. Many students live in fear of failure, criticism for lack of success and unpleasant consequences arising therefrom (not being able to go to college). School is experienced as a threat whereby injustices happen to individuals, for example in assessment. Youngsters who respect the school's demands on the one side and feels fear or resistance to it on the other will come into a conflicting situation triggering stress or burnout. Decreased impulse control also contributes to emotional exhaustion. It is a dimension of self-image that reflects the power of the ego apparatus in coping with different internal and external pressures. The lower the ego power is, the higher the feeling of overburdening and exhaustion tends to get. Beside impulse control another dimension of self-image plays an important part in the prediction of emotional exhaustion – mastery of the external world, which reflects the individual's capability to cope with the demands of the external world. In so far as this capability is reduced we can expect a higher degree of emotional exhaustion.

Findings for personal accomplishment also show that the most contributing dimension is anxiety (14 % of the variance). Besides anxiety personal accomplishment is affected especially by all three dimensions of the coping self. A specially important role is attributed here to superior adjustment. A reduced capacity to cope with the challenges of the environment increases feelings of inefficiency and lack of success. To a lesser

extent mastery of the external world and psychopathology also play a role in this case. A reduced capacity to cope with demand and the presence of psychopathological signs increase the feeling of decreased personal accomplishment; familiar self and emotional self also contribute to a decreased personal accomplishment. Family relationships, in our case bad relations between the youngster and the members of the family, negative family climate, an increased fluctuation of emotions and a reduced measure of harmony additionally fuel the feeling of a decreased personal accomplishment.

Depersonalisation is the dimension least explained with self-image and anxiety (11 % of the variable). Noted in this dimension is the highest contribution by anxiety (8 % of the variance), with family relationships and one of the dimensions of the psychological self – impulse control, contributing in a lesser extent. Even lower but still noticeable are the contributions of the emotional tone and two dimensions of the coping self – superior adjustment and psychopathology.

Taking a close look at the differences between the group that did experience burnout and the group that did not, it was established that the former differ from the latter in anxiety, family relationships, mastery of the external world and impulse control. These youngsters have are manifesting increased anxiety, their families have a history of bad interpersonal relations and negative climate, they have a reduced capability to master the external world and their ego apparatus is not strong enough to cope with various pressures arising from both the external and the internal environments.

We have thus established that besides anxiety some dimensions of self-image also play an important part in the prediction of burnout. Worth mentioning are especially family relationships, impulse control, emotional tone (psychological self), mastery of the external world, superior adjustment and psychopathology (coping self). Burnout is more common with girls and is one of the reasons for missing school lessons.

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