

Polish Adaptation of the ESSBS School-Burnout Scale: Pilot Study Results

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• Received: 19.02.2018 • Accepted: 27.08.2018 • Published: 30.04.2019

Citation Information: Tomaszek, K., & Muchacka-Cymerman, A. (2019). Polish adaptation of the ESSBS school-burnout scale: Pilot study results. *Hacettepe University Journal of Education*, 34(2), 418-433. doi: 10.16986/HUJE.2018043462

Abstract: The paper presents the problem of burnout in children at the age of 12 - 16 years. This is one of the factor responsible for the negative attitude of students towards school and significant decreases in motivation to learn in secondary-school-aged. The expectations of parents and teachers regarding children's grades surpass the grades the children might realistically receive. There is no scale available in Poland applicable to the problem of school burnout, thus the Elementary School Students Burnout Scale (ESSBS) was translated and adapted by the authors of the present article. The aim of the study was to report the results of the Polish adaptation of the ESSBS. The data collection was obtained from a total of 166 secondary school students, including 84 girls and 82 boys. They were asked to complete the school burnout scale (ESSBS), the sense of alienation inventory (PAI), the Type B scale (TAB) and the coping stress strategies scale (How are you coping?; JSR). The students were also asked some questions about their school performance and family and school relationships. The analyses are tested with the help of Statistical Package for the Social Sciences (SPSS) ver. 21. An exploratory factor analysis endorsed the four-factor structure of the original scale and adequate intercorrelations were identified among the subscales. The results prove the reliability and accuracy of the scale. The adapted Polish version of the ESSBS is valid and reliable and can be used as a measure of school burnout in Polish adolescents. The implications of these findings are discussed.

Keywords: education, secondary-school student, school burnout, stress

1. INTRODUCTION

The issue of burnout has been the subject of scientific research for over thirty years, analysed by experts from various scientific disciplines, such as psychologists, pedagogists, sociologists, and physicians (Tucholska, 2009). Experts researching this phenomenon believe that it is especially common among individuals whose work involves contact with other people (Mojs and Głowacka, 2005; Ogińska-Bulik, 2006; Wilczek-Rużyczka, 2008; Tucholska, 2009; Chang, 2012; Aloe et al., 2014). It is now believed that the syndrome may affect anyone, irrespective of their profession (Schaufeli et al., 2002). The risk of burnout grows with increased involvement in the work being performed as well as with its duration (Salmela-Aro et al., 2008). However, the phenomenon is not only present in the working environment. The latest research shows that overburdening may also affect school children and adolescents. Experiencing exhaustion caused by the performance of school duties is known as 'school-burnout' (Salmela-Aro et al., 2009a). In Schaufeli's view, the syndrome is related to experiencing chronic stress caused by educational failures. Based on the findings from Maslach's job burnout theory, Schaufeli et al. (2002) and Salmela-Aro et al. (2009b) distinguished three components of school - burnout: emotional exhaustion (the pupil experiences exhaustion with regard to school requirements); cynicism (depersonalisation, characterised by a feeling of detachment from and indifference to tasks imposed on pupils by the school) and a feeling of inadequacy (the pupil feels inadequate with regard to the fulfillment of school requirements). The use of the job

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burnout theory in an educational context is justified by the fact that from a psychological perspective, attending school is seen by the individual in the same context as performing work (Torsheim and Wold, 2001, as cited in: Çakır et al., 2014; Esteve, 2008, as cited in: Çakır et al., 2014). However, according to Aypay (2011), a Turkish researcher who has studied the issue, this kind of extrapolation raises certain concerns, as professional employment should not be equated with the acquisition of knowledge by children and adolescents. Slightly different pathomechanisms, along with different environmental and personal aspects, need to be taken into account when analysing school - burnout among children as opposed to studying adults in the context of professional employment. According to Kelecioğlu and Bilge (2009), when analysing pupil exhaustion, we should consider environmental components which contribute significantly to the occurrence of distress and consequently school - burnout, e.g. expectations of parents and teachers with regard to the pupil's achievements. Findings to date indicate that educational failures have a very strong impact on a personality structure that has not yet matured, including self-assurance and self-assessment. Therefore, the traditional definition of burnout, with its three components, is not a completely accurate scale to describe burnout mechanisms among developing individuals. Taking these aspects into consideration, Aypay (2011) carried out exploratory studies to determine the actual structure of school - burnout in a group of children aged 11 to 17. The result of his work was the creation of two scales, scales which can be used to measure school - burnout in children and adolescents: the ESSBS and SSBS scales. In Poland, the issue of school - burnout is rarely researched, and studies performed to date have focused on lower- and upper-secondary school pupils. Thus it seems reasonable to commence work on adaptation of the ESSBS scale, with primary school pupils as study participants. The topicality and significance of this subject are stressed by the findings of studies carried out by Salmela-Aro et al. (2008), showing a marked increase in school - burnout symptoms in 10% of respondents. It is estimated that the symptoms - i.e. a low level of involvement in school life, depreciation of the value of school, apathy, and withdrawal from school relations - affect between 40 and 60% of adolescents (Klem and Connell, 2004; Yazzie-Mintz, 2007, as cited in: Wang et al., 2014). In Polish studies, the percentage of students considered to be experiencing a high level of school - burnout or overburdened by the role of being a school pupil is around 20% (Pietrzak, 2012; Golonka, 2012; Padoł, 2012; Korczyński, 2014). Surveys conducted among 895 lower-secondary school pupils on the subject of educational stress suggest that 48% of lower-secondary school pupils are mentally exhausted after a day spent at school and feel tired afterwards (Korczyński, 2014).

The aim of the study was to verify the Elementary School Students Burnout Scale and to check whether the structure factor of school burnout (by Aypay) is also adequate for the Polish culture.

2. METHODS

2.1. Participants

A pilot study was carried out in December 2015, involving 166 lower secondary school pupils aged between 12 and 16 ($M = 13.61$, $SD = 0.68$), including 84 females (51% of the respondents) and 82 males (49% of the respondents). The students were in the 1st (70 participants) and 2nd grade of lower secondary school (96 participants).

2.2. Data collection tools

The ESSBS scale (*Elementary School Students Burnout Scale*) (Aypay et al., 2011). The author of the ESSBS scale (*Elementary School Students Burnout Scale*) (Aypay et al., 2011), carried out exploratory studies in order to draw up a list of difficulties and symptoms, which would then serve as the starting point for formulating questions to be included in the scale. The research project included 691 participants, encompassing pupils from 10 public primary schools

(school years 6 to 8 in Eskişehir, Turkey); 371 (54%) of the participants were female and 320 (46%) were male; 261 (38%) were in year 6 (10- and 11-year-olds), 236 (34%) in year 7 (11- and 12-year-olds), and 194 (28%) in year 8 (13- and 14-year olds). During an initial study, 150 pupils from 3 schools, grades 6–8 (one school in Ankara and two in Eskişehir), were asked to describe all negative feelings, thoughts, and experiences they had had with regard to school activities and homework. Moreover, students were asked to indicate any problems related to school that had a negative impact on carrying out their student duties and their relationships with other pupils at school. On the basis of the empirical data, a scale was created, consisting of 50 items. The author then added 38 further questions. The final version comprised 88 items; the respondents answered with the use of the Likert 5-point scale, ranging from 1 ('I definitely disagree') to 5 ('I definitely agree'). On the basis of opinions provided by 8 competent judges from 5 different universities (one judge was an expert in educational psychology; five were experts in support and counselling; two were experts in measurements and evaluation of psychological scales), it was decided that the final version should include 44 items and feature a 4-point scale for answers, from 1 ('I completely disagree') to 4 ('I completely agree'). The scale was then used to examine 730 pupils from 10 primary schools, who were asked for feedback on the clarity of the statements and understandability of the questions in the scale. Due to incomplete data, only the answers provided by 691 respondents were taken into account in further statistical analysis.

The final number of items included in the ESSBS scale was established on the basis of a factor analysis (using the principal component method with varimax rotation). The scale comprised 26 items. The Kaiser-Meyer-Olkin test result was 0.93, with a significant Bartlett's sphericity test result ($\chi^2(946)$ of 3831.155, $p < .01$). Four factor solution emerged from the exploratory factor analysis (EFA) explaining 59 % of the variance. The eigen values of the factors were in the range of: 6.29 (factor I), 3.10 (factor II), 2.94 (factor III), 2.89 (factor IV). The first factor, with 12 items, explained 24.2% of the variance. This factor was named **Burnout from School (BSA)**, as it comprised items related to overburdening, boredom, and distress experienced in connection with the performance of school duties and playing the role of a good student, e.g. doing homework and preparing for written and oral tests, and the conviction that these activities were pointless and absurd. The second factor explained 11.95% of the variance. This factor was named **Burnout from Family (BSF)**. The five questions constituting this factor related to the attitude towards school duties exhibited by important members of the child's family environment (mainly the parents). This type of burnout is related to experiencing school overburdening due to pressure exerted by the parents on the student to achieve the highest possible grades. Excessive pressure from the parents with regard to fulfilling the pupil's school duties causes the pupil to experience constant tension, psychological distress, and exhaustion; the student is not satisfied by the achieved results and thinks he or she could do better. The third factor explained 11.34% of the variance and was named **Inadequacy in School (IIS)** (exhaustion caused by insufficient competence at school). This factor comprised four questions, reflecting the pupil's inaccurate views about their ability to handle school requirements. The pupil is convinced that he or she lacks competences required to handle school duties, for example, doing homework and learning. A lack of self-belief generates poorer results in learning due to unwillingness to learn. The fourth and last factor, explaining 11.12% of the variance, consisted of five items and was named **Loss of Interest in School (LIS)**. This type of burnout refers to the pupil's loss of interest in school as an interesting place and a source of positive reinforcement. The pupil starts to believe that the school and the knowledge acquired there are of no value to him or her. Common variance of the factors varied from 0.37 to 0.75. The developed four-factor structure was verified through confirmatory analysis. The ratio of the theoretical model's adjustment to empirical data (among others, $\chi^2=787.6$, $df=293$, $p < .01$, $GFI=0.94$, $AGFI=0.91$, $PGFI=0.89$, $RMSEA=0.07$, $CFI=0.91$) proved satisfactory, which confirms the validity of use of the four-factor school- burnout structure.

The reliability of the four burnout sub-dimensions constituting part of the ESSBS scale was measured by Cronbach Alpha. The reliability factors fell in a range from 0.76 to 0.92, which indicates the high integrity of the scale. As part of item reliability analysis, split-half reliability was calculated; the factors for the individual scales constituting ESSBS fell in a range from 0.65 to 0.81, which indicates good psychometric characteristics. Correlations between the general result and the scales used to measure the burnout sub-dimensions established are positive, with moderate and high strength (BSA $r = .91$; BFF $r = .76$; LIS $r = 0.71$; ISS $r = 0.68$). Intercorrelations between individual scales are moderate (Pearson's correlation coefficient r falls between 0.34 and 0.59), which confirms that they measure different aspects of school - burnout.

The criterion validity was tested by verifying the relationship between results on the ESSBS scale and the Academic Expectations Stress Inventory, or AESI, by Kelecioğlu and Bilge (2009, as cited in: Aypay, 2011). The scale measures two aspects of stress related to the expectations of persons important to the pupil, such as parents and teachers (AESI-FTE scale) and requirements set by the student him- or herself (AESI-SSE scale). The correlations that were found indicate the relevance of the ESSBS scale. The scale that correlated with the stress factors most closely was Burnout from Family (BFF) (positive correlations of a moderate strength). Burnout from School (BSA) related to higher expectations set by the student him- or herself (AESI-SSE), which confirms the relevance of the scale. The more a pupil wants to achieve (leading him or her to put more effort into schoolwork), the greater the risk of overburdening. Inadequacy in school (IIS) correlated positively with the general stress level and with higher expectations set by the environment (AESI-FTE). This result is also consistent with the scale assumptions. From a psychological perspective, exhaustion in a certain area may be a consequence of excessively high expectations, which are related to an individual's increased efforts that fail to bring the expected results.

The results presented above show that the ESSBS scale possesses good psychometric characteristics. There is no scale for measuring school - burnout in this age group in Poland. Commencement of work on the adaptation of the scale ESSBS to Polish realities was considered justified.

The 'Sense of Alienation' Inventory (PAI) (Kmieciak-Baran, 2000) takes into account five categories of alienation. There are 100 items measured as part of five sub-dimensions: Normlessness (N); Meaninglessness (M), Powerlessness (P), Self-estrangement (Se) and Isolation (I). The reliability of total score measured by Cronbach Alpha coefficient is .88, while the sub-dimensions range from .98 to .28.

The TAB scale of Juczyński and Ogińska-Bulik (Juczyński, 2009) examines adolescents' predispositions to so-called type-A behaviour, a specific behavioural model or lifestyle (Juczyński, 2009) characterised by extreme rivalry, hostility, the tendency to compete for the highest achievements, aggression, excitability, impatience, a feeling of being pressed for time and being in a rush, as well as excessive responsibility. A contradictory model is **type-B behaviour**: individuals who exhibit this behaviour are not in a rush, can relax, and can adjust themselves to the flow of life rather than fighting constantly (Juczyński, 2009). Cronbach Alpha coefficient for Total score is .74, while the sub-dimensions range from .71 to .54.

The 'How do you cope?' scale (JSR) of Juczyński and Ogińska-Bulik (2009) is developed for children and adolescents from 11 to 17, and evaluates situational and dispositional stress-coping strategies. The scale measures three coping strategies: active coping, emotional coping and social supporting seeking. The Cronbach Alpha coefficient for situational score ranges from .66 to .71, while the dispositional attribution is .86.

2.3. Procedure

Current research on school burnout points to significant intercultural differences in the scale of the phenomenon. Even though the same burnout structure has been found in both collective and individualistic cultures, the level of difficulties experienced is significantly higher in the former. The original version of the scale was intended for use in Turkey, therefore it was decided to translate the scale. According to Drwal (1995), the risk of errors during the adaptation process increases due to the difficulties arising from cultural and linguistic differences. Translation, however, takes cultural characteristics into consideration, while maintaining the principle of universalism in terms of the structure of this phenomenon. At stage one, two independent experts translated the items into Polish. Next, on the basis of an analysis carried out by competent judges evaluating the accuracy of the translation, stylistic corrections were introduced into the translation of one of the items to eliminate a double negation. The finished version of the scale was then back-translated. Retranslation into English did not show any significant differences between the version received from the author of the scale and the version in preparation. During the study, the students filled out a survey including questions about their functioning at school, and a set of methods applied, i.e. the ESSBS (pilot version), the Sense of Alienation scale, the TAB and the JSR scales. The construct validity was conducted with exploratory factor analysis (EFA) and the reliability level of the scales was examined with Cronbach Alpha. To establish the criterion validity of the ESSBS scale, TAB, PAI and JSR were used. Intercorrelations between subscales and between school burnout and other variables were assessed by Pearson's correlations coefficient. All the statistical analysis in the adaptation of the Elementary School Student Burnout Scale was applied with SPSS ver. 21.

3. FINDINGS

Current research on school - burnout points to significant intercultural differences in the scale of the phenomenon. Even though the same burnout structure has been found in both collective and individualistic cultures, the level of difficulties experienced is significantly higher in the former. The original version of the scale was intended for use in Turkey; therefore, it was decided to translate the scale. According to Drwal (1995), the risk of errors during the adaptation process increases due to the difficulties arising from cultural and linguistic differences. Translation, however, takes cultural characteristics into consideration, while maintaining the principle of universalism in terms of the structure of this phenomenon. At stage one, two independent experts translated the items into Polish. Next, on the basis of an analysis carried out by competent judges evaluating the accuracy of the translation, stylistic corrections were introduced into the translation of one of the items to eliminate a double negation. The finished version of the scale was then back-translated. Retranslation into English did not show any significant differences between the version received from the author of the scale and the version in preparation. A pilot study was carried out in December 2015, involving 166 lower-secondary school pupils aged between 12 and 16 ($M=13.608$, $SD=0.677$), including 84 females (51% of the respondents) and 82 males (49% of the respondents). The students were in 1st (70 participants) and 2nd grade of lower-secondary school (96 participants). During the study, the students filled out a survey including questions about their functioning at school, and a set of methods applied, i.e. the ESSBS scale (pilot version), the Kmieciak-Baran 'Sense of Alienation' scale, the Juczyński TAB Scale, and the Ogińska-Bulik & Juczyński 'How Are You Doing' Scale.

The factor structure of the ESSBS scale was verified through exploratory factor analysis with the use of the Main Components method with varimax rotation and Kaiser normalisation. The matrix determinant for the data analysed was 3.6233, KMO test 0.84, with a significant Bartlett's sphericity test result ($\chi^2(325)=1297.347$, $p<.001$). As part of the analysis, four factors were distinguished, which essentially correspond to the four scales from the original version of

the scale. Factor loadings obtained in the Polish study were lower than those from the original study (Aypay, 2011). The four components jointly explain 45% of the variance. The percentage of the explained result variability for individual results is as follows: 26% (factor I), 7% (factor II), and 6% of the variance (the last two factors). The results of exploratory factor analysis are shown in Table 1.

Essentially, all items in the first three factors are loaded only with the scales assigned to them in the original version (factor I: the value of the loadings ranges between 0.592 and 0.710; factor II: between 0.470 and 0.673; factor III: between 0.394 and 0.739). The only factor which statements also reached high loads in other dimensions is factor IV, for which 6 questions reached significantly lower loads in the scale originally assigned to them (factor IV: the value of the loads ranges from 0.029 to 0.702). One possible reason why some items from factor IV do not fall within the allocated scale may be the character of the sample. It is also possible that the factor structure obtained for school - burnout was related to the sample size, i.e. N=166 pupils. The size met the criteria for the factorial analysis, but was significantly smaller than the Turkish sample size (N=691). It should also be noticed that the pilot study was carried out on a sample of lower-secondary school children (age group 12–16) whereas the original study was carried out on primary school children (age group 11–14). Therefore, the issue remains unsolved and requires further adaptation work.

Table 1: Loadings of individual factors of ESSBS items obtained in the first Polish pilot study

Test item numbers	School- burnout (factors)			
	1. Burnout from school	2. Burnout from family	3. Inadequacy in school	4. Loss of interest in school
13	.081	.176	.185	.710
15	.064	.126	.042	.562
18	-.062	.205	.208	.677
19	.064	.056	-.157	.616
24	-.024	-.145	.307	.592
8	-.013	.270	.470	.243
11	.146	.157	.613	-.033
12	.025	.115	.665	.109
17	.074	.120	.673	.196
5	.025	.615	-.128	-2.556
14	.200	.739	.106	.139
22	.356	.394	.117	.057
23	.255	.664	.138	.187
26	-.238	.567	.261	.062
10	.702	.150	-.085	-.144
3	.539	.023	.212	.429
16	.557	-.014	.214	.089
2	.477	-.100	.028	.531
1	.446	.197	.303	.307
4	.392	.193	.369	.385
9	.323	.001	.373	.078
20	.223	.213	.368	.454
7	.175	.244	.356	.504
6	.161	-.126	.617	.148
25	.138	.251	.338	.539
21	-.029	.586	.186	.250
Total percentage of explained variations: 45%	6%	6%	7%	26%

Table 2 shows scale measurement reliability factors (Cronbach's alpha) for individual ESSBS scales obtained in both the Polish and Turkish studies. The reliability of the whole scale of 26 items was 0.88. Split-half reliability measured with the Guttman coefficient was 0.84. The parameters obtained for the whole scale are very good. Reliability measured in subscales is satisfactory (Cronbach's alpha from 0.67 to 0.81), even though it is lower than in the Turkish study. Cronbach's alpha coefficient indicates the high integrity of the scale.

Table 2: Comparison of ESSBS scale reliability factors in the Polish and Turkish studies (Cronbach's alpha value)

	1. Burnout from school	2. Burnout from family	3. Inadequacy in school	4. Loss of interest in school
Turkish study (N=691)	0.92	0.83	0.76	0.81
Polish study (N=166)	0.81	0.68	0.67	0.72

The criterion validity of the Polish ESSBS scale was assessed by comparing its result factors affecting the pupils' functioning in the school and family environment, as provided by the pupils (data from a personal survey), and scales measuring phenomena connected to school - burnout, i.e. a sense of alienation, A-type behaviours, and dealing with stress. An analysis of the ESSBS scale intercorrelation matrix and its subscales created in the adapted Polish version of the scale indicates low and moderate correlations between burnout dimensions. The results are slightly lower than in the study carried out by the scale's author, but characterised by the same correlation direction. The results shown in Table 3 warrant the conclusion that the scale is internally consistent.

Table 3: Intercorrelations between ESSBS scales obtained in the first pilot study

Subscale number	1. Burnout from school	2. Burnout from family	3. Inadequacy in school	4. Loss of interest in school	General ESSBS result
1. Burnout from school	-				
2. Burnout from family	.44**	-			
3. Inadequacy in school	.55**	.35**	-		
4. Loss of interest in school	.58**	.30**	.39**	-	
General ESSBS result	.91**	.66**	.70**	.74**	-

** p<0.01

The current research points to a significant correlation between the sex of the respondents and the level of burnout experienced. According to some researchers, girls are more prone to experiencing school-burnout than boys (studies by, among others, Salmela-Aro and Tynkkynen, 2012; Divaris et al., 2012; Silvar, 2001). In the view of Geet al. (1994, as cited in: Salmela-Aro, 2009a), girls exhibit a higher level of stress at school; the symptoms are usually internalised, manifesting themselves as depressive episodes. Among boys, stress usually manifests as behavioural problems and lower grades. However, the relationship between school-burnout and gender is not straightforward. Some research showed higher levels of burnout among male students (Alemany et al., 2008; Bonafé et al., 2014), or similar values of the variable in men and women (a study by Backović et al., 2012). In a study involving a group of adolescents, a significantly higher burnout level was found among 16-year-old girls than boys (Salmela-Aro and Tynkkynen, 2012). At the same time, a commensurately high level of burnout in girls is also found at subsequent levels of education, which means that it is relatively stable. Among boys, although they are less exhausted by school to start with, a sudden increase in the burnout level is visible at subsequent educational stages. As part of the adaptation work, susceptibility to school-burnout was compared depending on the participants' gender. The results obtained (Student's t-test) indicate that boys are more susceptible than girls to experiencing school-burnout.

Table 4: Gender differences and school burnout

Name of Scale	Gender				t-test	p
	Female (N = 84)		Male (N = 82)			
	M	SD	M	SD		
1. Burnout from school	32.88	5.41	31.59	5.50	1.53	n/a
2. Burnout from family	13.73	3.09	13.35	3.11	0.77	n/a
3. Inadequacy in school	10.33	2.38	9.71	2.39	1.69	n/a
4. Loss of interest in school	12.07	3.15	11.00	2.80	2.32	0.02
General ESSBS result	69.01	11.30	65.65	10.29	2.01	0.05

The traditional definition of burnout used by authors such as Maslach (2010, 2011) or Pines and Aronson (2011) clearly show that burnout is a result of long-term and/or repeated excessive emotional burden caused by excessive involvement of an individual in an activity. The longer an individual is subjected to the effects of stress factors, the greater the risk of burnout and of developing a feeling of pointlessness with regard to the activity in question (Bartkowiak, 2005; Kraczkla, 2013). The phenomenon is the end result of a number of failures in achieving the goals set by the individual or someone in their surroundings. Growing disappointment and depletion of personal resources lead to fatigue and exhaustion. At the same time, another result of this chronic condition is a negative attitude towards oneself (lower self-esteem) and others (a negative effect on interpersonal relations, isolation and alienation) (Bartkowiak, 2005). The above findings suggest that burnout from school tends to be stronger in older adolescents.

Table 5: Comparison of the levels of burnout from school in pupils from I and II grade of lower-secondary school

Variables (N=165)	12–13 years old (I grade of lower-secondary school) (N=70)		14–16 years old (II grade of lower-secondary school) (N=96)		t	p
	M	SD	M	SD		
	1. Burnout from school	34.06	5.41	30.92		
2. Burnout from family	14.59	3.16	12.78	2.83	-3.862	0.001
3. Inadequacy in school	10.39	2.66	9.76	2.17	-1.669	n/a
4. Loss of interest in school	12.59	2.97	10.78	2.84	-3.967	0.001
General ESSBS result	71.61	11.33	64.24	9.50	-4.550	0.001

These results confirm that school-burnout is greater at successive educational levels. Children who are still adapting to the requirements of a new school (1st grade of lower-secondary school) exhibit significantly lower burnout levels than older children. Therefore, more years spent in education mean a longer struggle with identified stressors, which place a heavy emotional burden on the individual, which leads in turn to additional depletion of strength and a loss of interest in school and in related activities.

Next, the factors related to functioning as a school pupil described by lower-secondary school students were verified. The basic concept of job burnout states that only highly-motivated employees experience burnout: ‘in order to burn out, you need to burn first’ (Şek, 2004, p. 44). Burnout is referred to as ‘excessive involvement disease’ (Skowron-Mielnik, 2016). Therefore, burnt-out students should achieve significantly lower grades compared to their peers who are not experiencing this phenomenon, and this should be apparent from a long-term perspective. The consequence of school - burnout is a low level of motivation to learn, which would indirectly indicate less time dedicated to school activities.

Table 6: Comparison of school- burnout and student declarations about the level of school performance

Variable	Very good and good (N=85)		Average and very bad (N=81)		t	p
	M	SD	M	SD		
1. Burnout from school	34.89	4.60	29.46	4.92	7.360	0.0001
2. Burnout from family	14.01	3.12	13.05	3.01	2.021	0.0449
3. Inadequacy in school	10.71	2.17	9.31	2.43	3.914	0.0001
4. Loss of interest in school	12.33	2.90	10.72	2.94	3.560	0.0005
General ESSBS result	71.94	10.25	62.53	9.45	6.142	0.0001

In the light of the data, the scale distinguishes between those who consider themselves good or very good students and those who declare themselves to be average, bad, or very bad students. According to the theoretical assumptions behind the concept, school-burnout manifests itself in a lack of involvement in school activities such as homework, volunteering to answer teachers' questions, and preparing for tests. As a consequence, the pupil achieves lower and lower grades. The differences shown confirm the relevance of the scale. According to the theoretical assumptions, school-burnout occurs among students who were at first highly committed to the performance of their school duties. These students, as a result of experiencing chronic stress, a lack of necessary psychological resources, and support to deal with the stress, become burnt out (Salmela-Aro et al., 2009a).

Part of the analysis included checking whether there was a difference between students describing how their grades changed over the course of their education.

Table 7: Comparison of school- burnout and student declarations about grades

Variables	1. Increasingly better (N=45)		2. Increasingly worse (N=28)		3. No change (N=93)		F	p	Post-hoc Tukey'sHSD test
	M	SD	M	SD	M	SD			
1. Burnout from school	33.13	4.78	29.64	5.95	32.59	5.46	4.095	0.02	1-2; 2-3
2. Burnout from family	13.49	3.34	12.43	3.39	13.90	2.82	2.495	0.09	-
3. Inadequacy in school	9.91	2.74	9.89	2.17	10.12	2.31	0.162	0.85	-
4. Loss of interest in school	11.64	3.20	10.86	3.39	11.70	2.82	0.870	0.42	-
General ESSBS result	68.18	10.59	62.82	12.52	68.31	10.31	2.972	0.05	2-3

The results suggest that the general school-burnout level among pupils who declare that their grades have gotten increasingly worse is different than that among pupils who report no changes. A significant difference was also found in the level of involvement in school activities; the pupils who declare that their grades have gotten increasingly worse were found to have significantly higher burnout levels than the pupils who described their grades as increasingly better or who reported no changes. There may be several reasons for the lack of significant differences in the other dimensions. First of all, the number of students describing their results as increasingly worse is relatively lower. A lack of difference in terms of burnout from family, incompetence, and loss of interest in school may be related to the fact that some respondents adapt themselves to school requirements. The study took place in December 2015, before the mid-term credits had been awarded; therefore, it is likely that some students from 1st grade of lower-secondary school still knew nothing about any significant changes in their grade average. The comparison they had to make required them to analyse their grades achieved in primary school and their current grades, with no indication of their mid-term or final grades to rely on.

Table 8: Comparison of school-related burnout and student declarations about devoting time to study per day

Variables (N=165)	1. one hour (N=54)		2. two hours (N=69)		3. three hours and over (N=42)		F	p	Tukey's HSD test
	M	SD	M	SD	M	SD			
1. Burnout from school	30.06	5.78	32.38	4.61	34.95	5.24	7.403	0.000	1-3
2. Burnout from family	13.61	3.18	13.03	2.94	14.31	3.18	1.526	0.210	-
3. Inadequacy in school	9.43	2.60	10.25	2.12	10.48	2.46	2.096	0.103	-
4. Loss of interest in school	11.09	3.23	11.54	2.77	12.19	3.09	1.287	0.281	-
General ESSBS result	64.19	11.25	67.19	9.06	71.93	11.91	4.563	0.004	1-3

According to the theoretical concept of school-burnout, an increase in burnout level causes reduced involvement in school activities, apathy, and cynicism. One behavioural indicator of this attitude is a reduced amount of time spent on learning. The results indicate that general burnout level and results on the burnout scale related to non-involvement in school activities differ between the pupils who spend the least amount of time learning, i.e. up to one hour daily, and those who spend the greatest amount of time learning, i.e. 3 hours and more. Higher burnout levels (lower results on the ESSBS) were found among the pupils who spend the least amount of time learning. This result confirms the relevance of the scale.

Table 9: Comparison of school-related burnout and student declarations about the quality of family relationships

Variables (N=164)	Very close (N=100)		Satisfactory and very bad (N=64)		t	p
	M	SD	M	SD		
1. Burnout from school	33.86	4.92	29.84	5.41	-4.886	0.000
2. Burnout from family	14.11	2.77	12.78	3.38	-2.744	0.007
3. Inadequacy in school	10.25	2.13	9.67	2.78	-1.510	0.133
4. Loss of interest in school	12.12	2.83	10.59	3.08	-3.257	0.001
General ESSBS result	70.34	9.65	62.87	11.46	-4.471	0.000

When analysing the relevance of the scale, the difference between the declared quality of family relations and results on the ESSBS scale was also checked. The results show that higher burnout levels are present among students who report a lower quality of relations within their family environment. The only insignificant differences were found in the subscale related to inadequacy in school.

Table 10: Correlation coefficients between ESSBS and Alienation Scale

Name of variable	Normlessness	Meaninglessness	Powerlessness	Self- estrangement	Social - isolation	Total score of alienation
1. Burnout from school	-.500***	-.526***	-.215*	-.245**	-.309**	-.532***
2. Burnout from family	-.253*	-.258*	-.052	-.187	-.053	-.238*
3. Inadequacy in school	-.279**	-.164	-.160	-.239*	-.104	-.276**
4. Loss of interest in school	-.271**	-.245*	-.019	-.184	-.249*	-.290**
General ESSBS result	-.438***	-.419***	-.155	-.268**	-.253*	-.454***

*** p<0.001 ** p<0.01 * p<0.05

While analysing the relevance of the scale, the relationship between a feeling of alienation and school-burnout was also tested. In the light of the current theoretical and empirical findings, alienation is one of several burnout predictors (e.g. O'Donohue and Nelson, 2012; Du Plooy and Roodt, 2010; Schlichte et al., 2005; Powell, 1994; Kanungo, 1979, 1992;

Andersson, 1996; Lee and Ashforth, 1993; Maslach et al., 2001; Sanders, 1997), and is even equated to burnout (Karger, 1981). Pearson's correlation r coefficients confirm a strong correlation between burnout and alienation. The higher an individual's school - burnout level, the higher the general alienation level ($r = -.454$), along with Normlessness ($r = -.438$), Meaninglessness ($r = -.419$), Self-estrangement ($r = -.268$), and Social - isolation ($r = -.454$). Insignificant correlations were found between school- burnout and Powerlessness. A significant correlation was found only between this aspect and the scale related to non-involvement in school activities. On one hand, this result seems justified, as a sense of powerlessness is defined as a pupil's conviction that his or her own actions are ineffective and that he or she is at the mercy of outside forces (Kmicik-Baran, 2000). This feeling rather suggests that the pupil is making external attributions. At the same time, school - burnout is closely related to a conviction that the pupil failed to meet his or her own and external expectations. Therefore, it is rather a result of internal attribution.

The analysis also focused on correlations between results on the scale and type-A behaviours. The Type A/B Scale (TAB) of Juczyński and Ogińska-Bulik examines adolescents' predispositions to so-called type-A behaviour, a specific behavioural model or lifestyle (Juczyński, 2009) characterised by extreme rivalry, hostility, the tendency to compete for the highest achievements, aggression, excitability, impatience, a feeling of being pressed for time and being in a rush, as well as excessive responsibility. A contradictory model is **type-B behaviour**: individuals who exhibit this behaviour are not in a rush, can relax, and can adjust themselves to the flow of life rather than fighting constantly (Juczyński, 2009). In the light of the data obtained, general burnout is connected to a stronger predisposition to type-A behaviours, which mostly manifests itself in rushing constantly and always competing with others.

Table 11: Correlation coefficients between ESSBS and TAB Scale

Variable name	General level				
	of A/B behaviour	Hostility	Rush	Impatience	Rivalry
1. Burnout from school	-.229*	-.113	-.2780**	-.040	-.192
2. Burnout from family	-.329**	-.334**	-.0844	-.180	-.241*
3. Inadequacy in school	-.068	.006	-.1354	.073	-.055
4. Loss of interest in school	-.172	-.013	-.1369	-.122	-.224*
General ESSBS result	-.287**	-.168	-.242*	-.094	-.250*

*** $p < 0.001$ ** $p < 0.01$ * $p < 0.05$

While analysing the relevance of the scale, correlations between results on the school-burnout scale and the ability to deal with stress were also examined. In the light of the obtained data, there is no relationship between school - burnout and the ability to deal with stress in specific situations. Therefore, burnout does not reflect an individual reaction to a stressor, but a certain fixed attitude towards burdening situations, characterised by the failure to use active preventative strategies. Here we should refer to Silvar's findings (2001), according to which school - burnout is a condition characterised by a certain fixed attitude towards the school environment and school duties. The student experiences strong negative emotions, which means that he or she focuses all his or her efforts on dealing with these emotions, and the search for constructive solutions to use in a difficult situation takes second place. Correlation coefficients confirm these theoretical assumptions. The lower the level of school - burnout experienced, the greater the ability to use active strategies of dealing with stressors. As pointed out by Montero-Marín (2014), burnt-out students use passive strategies of dealing with stress. Pupils examined by this author stop making an effort in the school environment and concentrate on obstacles and difficulties.

Table 12: Correlation coefficients between ESSBS and JSR Scale

Variables	Situational coping stress			Dispositional coping stress		
	Support	Emotional	Active	Support	Emotional	Active
1. Burnout from school	.097	-.022	.158	.040	-.021	.379***
2. Burnout from family	.040	-.256*	.048	-.139	-.171	.059
3. Inadequacy in school	-.099	-.200	-.018	.011	.037	.242**
4. Loss of interest in school	.098	-.003	.098	.091	-.058	.232*
General ESSBS result	.069	-.137	.121	.004	-.072	.336**

*** p<0.001 ** p<0.01 * p<0.05

A significant correlation between school – burnout and emotional coping strategy is quite interesting. It indicates that the higher the level of burnout from family, the less frequently strategies focused on emotions are used. This correlation is consistent with the burnout types distinguished by Montero-Marín (2014) in terms of coping stress, i.e. the frenetic, resigned, and neglectful type. In the case of the first, *frenetic* type, the dominant component is feeling overburdened and exhausted, with a characteristic conviction that reaching important goals requires sacrifices. In research carried out on students, this type was mostly connected to experiencing strong tensions and frustration caused by predicted difficulties with learning the required material. Active strategies adopted by students to cope with stress related to ignoring their own needs, withdrawing from social life, and learning despite knowing it was harmful to their health. The obtained result confirms those findings.

4. DISCUSSION and CONCLUSION

The results of the conducted statistical analysis indicate that the Polish version of the ESSBS scale shows slightly lower psychometric parameter values than the original. The reliability of the Polish scale is satisfactory. The conducted factor analysis confirms the four-factor structure of school - burnout. The gathered statistical data indicate methodological difficulties involving 6 questions with significantly smaller factor loadings compared to the original version (they all comprise part of the Burnout from School scale). Most of these questions concerned a feeling of fatigue while learning. It is possible that the Polish respondents had difficulty defining ‘fatigue’ precisely (is it a question of physical or mental symptoms?). Fatigue is such a broad and complex term that it is not easy to define it clearly. It is difficult to distinguish between its different degrees, i.e. fatigue, tiredness, and exhaustion. According to some researchers, due to the sociological and cultural situation in Poland, chronic fatigue is an invisible or even a concealed issue in an educational (as well as professional) context (Krawczyk, 2012). Students showing signs of fatigue are often unable to identify its cause, or they ignore it. The obtained results may also be linked to the fact that the study group was composed of young people at a specific developmental stage, i.e. early adolescence. Changes occurring at this stage connected to the body’s sexual maturity as well as inner conflicts, difficulties with meeting needs and goals, nervousness and emotional ambivalence, decreased resistance to stress, vulnerability to psychological tensions, and problems with interpersonal relations, all contribute to feelings of fatigue (Krawczyk, 2012). It is therefore possible that in a situation in which they feel tired, students are unable to identify the actual source of their fatigue, i.e. burnout from school. The unsatisfactory factor loading values for these questions may also be linked to the respondents’ misunderstanding of the questions. In Polish, the phrase ‘somebody/ something is making me tired’ may refer not only to a loss of strength, but also to a feeling of irritation or annoyance. In the context of the obtained results, it is important to re-analyse the linguistic aspect of the ESSBS scale, especially the questions related to fatigue, as this may facilitate improved psychometric parameters. Relevance analysis focused on differences in the experienced level of burnout depending on gender, age, school achievements, amount of time spent on learning, and family relations. Especially interesting, in this context, are differences between the level of burnout and the student’s functioning in the family

environment. In view of the basic research objective, i.e. adaptation of the ESSBS scale for Polish applications, this issue was analysed only briefly. However, the relevance of the obtained results seems to indicate that parents and the atmosphere in the family, as well as the degree of closeness and support provided to students at home, constitute an important factor protecting them from school - burnout. The relevance analysis of the Polish version of the ESSBS scale indicates a strong link between school - burnout and feelings of alienation, especially such aspects as Normlessness and Meaninglessness. However, in the light of previous findings, which identify alienation with burnout, this relationship seems less significant than expected. In the light of the gathered data, the feeling of alienation constitutes a separate concept. It seems important to seek an answer to the question of whether the feeling of alienation acts as a mediator between engagement and school - burnout. Research conducted to date clearly shows that burnout is a result of long-term psychological stress, which leads to psychological discomfort and withdrawal (Maslach, 2011; Tucholska, 2009). In this context, alienation might be a stage occurring before burnout. The relevance analysis also considered the relationship between school - burnout and stress. The obtained results indicate that the higher the level of school - burnout, the higher the tendency to engage in type-A behaviours. The pathogenic Type A is characterised by a high level of impatience and aggression, low self-esteem, and disbelief in his or her effectiveness, along with lack of faith in being able to maintain control over his or her life and the use of 'passive' coping strategies (Juczyński, 2009). At the same time, lower burnout levels indicate the use of active strategies of dealing with stress (JSR scale). The above-mentioned correlations are consistent with the findings compiled to date. The most common symptoms of school - burnout are: strong negative emotions; chronic bad moods and dissatisfaction; a sense of disappointment, frustration, discouragement, helplessness, and low self-esteem; lack of self-development; feelings of loneliness and incapacity; loss of motivation; a low level of satisfaction with life; a pathological tendency to leave homework and studying until the last minute due to fear of failure pending experience of a high level of stress (procrastination); a state of dejection; and anxiety (Wilsz, 2009; Mehdinezhad, 2011; Capri et al., 2012; Raiziene et al., 2014; Çakır et al., 2014; Wang et al., 2015). The lack of a significant correlation between situational coping mechanisms and school - burnout also confirms the theoretical assumptions of the ESSBS scale. School - burnout is seen as a response to chronic stress in students who had previously been involved in school activities (Aypay, 2011; Salmela-Aro et al., 2009a; Parker and Salmela-Aro, 2011). This reaction is closely related to the mismatch between a young person's personal resources and sources of support on one hand, and expectations regarding school accomplishments on the other.

The issue of diagnosing school-burnout in children and adolescents is linked to research on predictors of educational failure and success and on causes of problems in adaptation to the school environment. School-burnout is an indicator of the level of an individual's adaptation to the expectations set by the environment and his or her own belief in his or her ability to achieve broadly-defined success at school. Most scales used to examine the concept are based on the use of Maslow's job burnout theory, created on the basis of analyses of the adult population. It is clear that extrapolation of the experience of burnout to an educational context is fully justified and needed. An unquestionable advantage of the scale presented in the article is that it was built on the basis of exploratory studies involving children and adolescents. To date, the issue has not been examined on a large scale in Poland. At the same time, many professionals from the sector talk about a negative attitude towards school and a significant decrease in the level of motivation among secondary-school-aged children (studies by, among others, Otis et al., 2005; Gillet et al., 2012; Chow and Yong, 2013; Jozsa et al., 2014). It seems that school-burnout may be a possible explanation for the above-mentioned difficulties. The results of initial work on the Polish version of the ESSBS scale presented here with suggest that the scale meets the basic psychometric criteria for scientific research and does not deviate significantly from the original version. The results of validation studies confirm the relevance of the scale. The scale correlates

with the indicators of a reduced ability to function as a student, a sense of alienation, the type-B behavioural model, and the use of less efficient strategies of coping stress. The ESSBS scale is felt to be a useful tool in evaluating longitudinal change in process of school – burnout among individual or a group of students on different stage of their development. The ESSBS scale has potential applications for international use both in research and as a screening tool in educational settings.

4.1. Limitations of the Current Study

The limitations of the present study are as follows. Firstly, the individuals in this study include a small number of secondary school students and this might prevent the generalisation of the present findings. Secondly, the four-factor structure of the school burnout was confirmed by EFA analysis but further studies should carry out confirmatory factor analysis (CFA). Because this is the first study analysing the structure of the Polish adaptation of the ESSBS, the structure should be reconsidered in future studies on a larger sample that is more gender-balanced and diverse in age and comes from different regions of Poland. Thirdly, the present study focused only on the validation and reliability of the ESSBS in Poland, but not all socio-cultural variables were included such as socio-economic status, youths from single-parent families, single-child families or large families and religious/nonreligious families. The study explored the relationship between alienation, Type B behaviour and coping strategies (all individual predictors of school burnout), but further research should include family and school (classroom) environmental contexts and school-family conflicts. Fourthly, the data collection in this article is based only on self-report data. To overcome this limitation in future studies, it is required to use experimental methods and data from other more objective resources such as the school psychologist and counselor diagnosis, school grades, parents views of children's problems etc.

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