# Burnout - an comparative analysis of the phenomenon on the basis of research carried out among healthcare, education and higher education professionals. 

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## Introduction

For more than forty years the phenomenon of burnout has been generating a great interest among psychologists and management professionals. The literature concerning this subject delivers many studies and a lot of research concerning the diagnosis of burnout and its predictors, especially among the professionals who are engaged in helping relationships with their patients, clients or pupils. In the pioneering empirical studies, firstly carried out by H.J. Freudenberg and then by Ch. Maslach, this psychological syndrome was described as a particular state that affects an individual who has been bearing high long-term emotional and psychophysical costs and was defined as a psychological syndrome of emotional exhaustion, depersonalization, and lowered self-efficacy, that is likely to occur among professionals having interpersonal relationships.

The contemporary theories of burnout define this phenomenon as a "disordered professional relationship" between an individual and his/her job, environment, external expectations etc. (Maslach, Leiter, 2011). What is more, the spectrum of the symptoms of burnout includes the understanding of work disappointment as an existential-axiological issue that embraces work dissatisfaction, lack of self-realization and failure in meeting one's expectations (M. Santinello 2008, 2014). It is worth emphasizing that the problem of coping with the consequences of long-term occupational stress was brought to attention by a legislative action that had been taken by the European Union. The legal framework for the discussion about workers' health and safety (as well as about the possible prevention measures) was set by Council Directive 89/391/EWG of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work (Dz. U. L. 183 of 29 June 1989, hereafter referred to as Framework Directive), with the last modification dating 2008. In the Article 5 (1) the Directive defines a wide scope of employer's responsibility, who is excepted to "ensure the safety and health of workers in every aspect related to their work". Each member state of the European Union is responsible for setting its own "basic" framework for actions necessary to reduce psychosocial risk at work. The Belgian legislation remains an undisputed leader in this respect. Due to legal changes, in force from 1 September 2014, not
only did it introduce a definition of psychosocial risk to the domestic legal system but also imposed a number of obligations on the Belgian employers which aim to prevent their occurrence.

The observations on the current job market in Poland indicate that the burnout problem is escalating every year. However, the scale of the phenomenon is hard to determine, because there is no Polish nationwide study concerning this matter. A research that can be used as a starting point was carried out by Prof. A. Bassam in collaboration with the Marshall Office and the Regional Centre for Occupational Medicine in Kujawsko-Pomorskie voivodship (Molenda, Hąbek, 2015). The study was carried out among four thousand employees working in different companies. The results were surprising: the "burned-out" or "just- before- burnout" employees amounted to $48 \%$ which suggest how serious the scale of the phenomenon could be globally and how important it is to take preventive action in this respect.

## Part 1 Research on the group of employees

In the project, two types of primary research were carried out for the group of employees. The first type of study was FGI in the number of 3, one in education, higher education and medical care (qualitative research). The total sample was 24 persons. The research was conducted in June 2017. The respondents were employees of the said branches from the Lower Silesian Voivodship. The conclusions of these studies have been used, on the one hand, to develop the final version of quantitative questionnaires (PAPI), and to develop effective solutions for the Time2Grow model. The second type of study was a PAPI study in a sample of 153 respondents. The main aim of the study was to evaluate the degree of knowledge of the burnout phenomenon and to perceive existing / possible solutions in terms of its prevention.

## Summary of focus group interviews

## Education

All of the respondents are familiar with the phenomenon, but their knowledge of the matter does not go beyond clichés. Usually, it has been acquired during formal education (studies) or vocational education (post-graduate studies). Burnout is associated with a various physical and psychological symptoms and - which is mostly accurate - strongly connected to stress and no motivation to work. It has been said that there is a positive correlation between age and burnout - the older a person the higher risk of burnout. The surveyed teachers are convinced that a person affected with burnout is aware of the fact and is able to recognize the symptoms. But they will not admit to that fact! Confessing to being burn-out would mean being weak and not suited to one's job. It could also result in a negative appraisal and ultimately - being dismissed. There were strong associations with psychological problems - burnout is something to be ashamed of, a taboo that is not mentioned nor discussed, although the symptoms are noticeable. Assumptions has been made that if a teacher had been diagnosed with burnout he / she would have probably been
deemed responsible for that fact. That would have probably brought negative consequences to the teacher himself / herself.

There is a belief that the phenomenon is common and it has a significant influence on the results that schools achieve. But that is an open secret and the teachers will not admit to having a problem. They are too afraid to lose their job, thus admitting to one's weakness may turn against them. Education professionals are reluctant to take sick leave because that could cost them losing a full-time job. As a result the representation of the issue may be very distorted and the phenomenon itself underestimated.

No system solutions in the area of burnout (knowledge, diagnosis, prevention). The current understanding of burnout - both that of individuals and of the whole environment - is not sufficient enough.

It is worth including following issues in T2G:

- drawbacks of the educational system in Poland (instability, reforms, bureaucratization)
- a need of breaking the taboo of burnout (factual communication on the matter)
- the fact that burnout can deteriorate the prestige of the profession. It is essential that communication towards parents and children include that message.


## Higher education

Burnout is a well-known phenomenon but it is rarely spoken of. It is most strongly associated with fatigue, which is used a substitute term for the proper term by academics. Although they are familiar with the term of burnout it is also inconvenient . One could have an impression that burnout and academics are not a good fit. The respondents did not point out to any systematic resources concerning burnout - no training, no courses during studies, sporadically there were some courses during pedagogical courses but they were quite random.

The surveyed academic teachers have got a feeling that a burn-out academic may be aware of being affected by the syndrome. But - similarly to teachers - they will not admit to being burn-out! That could be a signal that they are not suited to their work or their occupation. There are many similarities between the attitudes of
academics and lower-level education with regard to burnout. Instead of mentioning burnout (which is concealed), there are discussions about fatigue, which believed to be caused by system. The nature of working at university makes it harder to maintain everyday face-to-face contact with colleagues (different working hours, there is no custom of working in one room at university).

Virtually, there are no solutions regarding burnout (knowledge, diagnosis, prevention).

The need to discuss the issue is obvious but there is much resistance to start public discussion at universities. Burnout may be associated with lower quality of work, and it is an association that can be a threat to the employees. There is a claim that employers are not familiar with the phenomenon of burnout, are not ( do not want to be) aware of the issue and the employees are afraid to admit to having a problem.

In T2G it is worth including:

- the rigidity of the system
- academics' resistance in admitting to a weakness - they are anxious about their professional image
- a fear of being dismissed if an employee did not meet employer's expectations
- the main sources of stress: bureaucracy, being accounted for one's goals, assessment, competing for points and grants
- a stable type of work
- difficulty in implementing preventive actions at universities


## Health care

In health care burnout is a well-known issue - from trainings but also based on personal experience of coworkers in work environment (although without an official diagnosis). The respondents believed that they had a pretty good understanding of burnout, they knew how to recognize and asses the symptoms, whether it concerned them or others. The sources of knowledge: formal education (studies), trainings (also the ones organized by an employer), informal conversations with people who have been affected by the syndrome, observations of burnt-out people, media.

A positive correlation between burnout and seniority is recognized - the longer the seniority the bigger fatigue and the higher risk of being burn-out.

The health care professionals are probably more familiar with the topic and are less reluctant to speak about it comparing to other groups. It also seems that discussions on somebody's burnout are less frowned-upon or even more common. In this case burnout is not a stigmatizing taboo, being exhausted does not equal a weakness that will inevitably lead to dismissal. That does not necessarily mean the problem is diagnosed more frequently or described properly.

Most of the care workers are convinced that burnout is recognized by those suffering from it but also by their supervisors or organization. It is important to others: a burnout person's performance is bad, ineffective or there is no performance at all. The workload of a burn-out person is moved to the colleagues, the cooperation is more difficult, such person cannot be relied upon, conflicts among team members arise. Patients and their families start to complain. An organization tolerates lower performance, because there is a shortage of nurses and even a poorer performance is better than no employee.

Similar opinions prevail among the workers of the City Social Welfare Center - the surveyed organization is understaffed so the symptoms of burnout may be tolerated although they lower the employees' performance. According to the respondents, burnout has great significance for an employee: it induces anxiety, influences selfesteem and emotions (depression), causes addictive behaviors, worsens the quality of life, lowers the quality of work.

## Summary of PAPI research

## The research material and analytical tools used during the research

The research was conducted on June and July 2017 on the group of 153 people working in the following areas: healthcare (mid-level staff, mostly nurses, 64 people), education (teachers, 46 people), higher education (academic teachers, 43 people). The table below groups the respondents on the basis of the survey demographic questions.

Table no. 1: The division of the sample by the characteristics included in the demographic questions.

| Workplace |  |  |  |
| :---: | :---: | :---: | :---: |
| Healthcare | Education |  | Higher education |
| 64 | 46 |  | 43 |
| Place of residence |  |  |  |
| Countryside | City of less than 50000 inhabitans | City of 50000 200000 inhabitants | City of over 200000 inhabitants |
| 13 | 28 | 30 | 82 |
| Type of institution |  |  |  |
| Private sector | Public sector |  | Mixed capital |
| 36 | 112 |  | 5 |
| Sex |  |  |  |
| Male |  | Female |  |
| 25 |  | 128 |  |
| Age |  |  |  |
| 35 years or less | 36-45 years | 46-55 years | 56 years and more |
| 20 | 46 | 67 | 20 |
| Seniority |  |  |  |
| Under 5 years | 6-15 years | 16-25 years | Over 25 years |
| 8 | 42 | 51 | 52 |

Source: own calculations

Most of the respondents are residents of cities of more than 200000 inhabitants. 112 people work in the public sector, 36 in the private sector and 5 in mixed enterprises. This structure derives from the fact that the considerable number of schools and bigger universities are public institutions. There was a significant prevalence of women over men in the sample (128 versus 25), which clearly reflects the extent to which the teaching and nursing profession are female-dominated.The sample is divided by age as follows: the respondents aged 46-55 (67 people) and those aged 36-45 (46 people) form the most numerous groups; the other two groups, i.e. " 35 years and less" and "55 and more" involved 20 participants. 52 respondents have been working in their profession for over 25 years, 51 people have gained the seniority of 16 to 25 years, 42 respondents declared 5 to 15 years of professional experience and 8 people have been working in their profession less than 5 years. Most of the respondents - due to the formal requirements in the analyzed professions - received higher education (115 people); others got secondary education (that includes 14 people who graduated from further education college).

Two types of questionnaires were used for the purpose of this research. The first was a LBQ Burnout Questionnaire, which is an adaptation of an Italian Link Burnout

Questionnaire ${ }^{1}$ (Santinello, 2008, 2014). The other questionnaire has been originally devised by the authors to assess the perception of the phenomenon among Polish employees.

The LBQ questionnaire allows to diagnose four key aspects of burnout, i.e. psychophysical exhaustion, lack of involvement in relationships with clients (patients, pupils, etc.), lack of sense of professional self-efficacy (effectiveness) and career disappointment. The psycho-physical aspect includes the self-assessment of one's own psycho-physical resources like stress level, mental pressure and fatigue. The aspect concerning relationships with recipients raises the issue of the quality of the relationships (with patients, pupils, clients, etc.) and helps to study an individual and subjective attitude towards social environment at work. The aspect of professional effectiveness refers to how an individual assesses his/her professional competence, while the aspect regarding career disappointment concerns the existential expectations that an individual holds for their work, job satisfaction, enthusiasm for work and the sense of professional fulfillment. The tool possesses a satisfactory psychometric characteristics. It consists of 24 positions - statements that describe the feelings of a subject towards his/her work. Respondents answer the questions using the six-level frequency scale (the scope of which is: "never", "seldom", "once or a few times per week", "roughly once per week", "a few times per week", "everyday").

The original questionnaire was to assess the extent to which the phenomenon is recognized among the Polish employees. It comprised 26 questions, 22 of which were closed, 4 questions were open and 6 questions were demographic ones. The closed questions were twofold: they either determined the occurrence of a given factor (when a respondent answered one or more questions from the cafeteria) or assessed the level of occurrence of a given factor (on a 11- level scale, from 0 to 10).

## Main research goals

The aim of the PAPI was a preliminary assessment of the phenomenon of burnout in Poland. As part of the development of an accurate and practical model for reducing

[^0]and preventing burnout, extensive primary studies on perceptions of burnout and symptomatic symptoms have been conducted among representatives of the three professional groups, health care workers and education, and seems particularly innovative due to insufficient research - higher education. To meet the objective of the research two questions must have been asked:

1. Do the employees and employers in Poland perceive (are aware of ) the phenomenon of burnout (and to what extent)?
2. Are there any differences in the perception of burnout and its symptoms among the representatives of the three professional groups that, as the subject literature suggests, might be especially vulnerable to the syndrome?

## The results of the research with the use of LBQ Burnout Questionnaire

The results of the LBQ survey are presented as sten scores ${ }^{2}$. The LBQ tool diagnoses the level of burnout in reference to three states experienced by subjects: low ( $1-3$ scores), average ( $4-7$ scores) and high ( $8-10$ scores). It enables to analyze four aspects (dimensions) of burnout. If any of the dimensions of the questionnaire receives high scores it means - according to the subject matter - that there is a potential threat of burnout in this particular area. Nevertheless, it is important to stress that even average results are an alarming sign indicating problems with functioning at work. That originates, among others, from the dynamics of the burnout process which is known to intensify with time, together with its symptoms. The process deepens unless there have been some interventions or significant events in an individual's professional or private life (Cherniss, 1992, Golembiewski i in. 1993a, 1993b).

The results of the conducted survey with the aid of LBQ questionnaire allow to confirm the hypothesis stating that the phenomenon of burnout is omnipresent among the Polish employees working in healthcare, education and higher education sector. From the perspective of emotional depletion (understood as psycho-physical and emotional fatigue, sense of helplessness, being overwhelmed with work) each of the three groups achieved similar results. In the healthcare sector $75 \%$ of subjects

[^1]experience the average level of emotional exhaustion, while only $8 \%$ of them highly developed this symptom. Among the group of teachers $72 \%$ respondents report being moderately fatigued with their work and $13 \%$ declare that their level of fatigue is high, which suggests a very high level of stress and strain. Among the higher education professionals $77 \%$ is moderately affected and $14 \%$ is highly affected by exhaustion. Psychological studies confirm that emotional depletion, which is sometimes viewed as a consequence of excessive occupational stress, is the first and the most common symptom of burnout. For this reason it is quite difficult to differentiate the level of burnout relying solely on such universal indicator as emotional depletion (Noworol, Marek, 1993). To diagnose burnout accurately it is important to take other symptoms into consideration, particularly a low level of involvement in relationships (with coworkers, clients, pupils, students) and a lowered sense of professional effectiveness. It is those factors that discriminate between "healthy" occupational functioning and behaviors that are an imminent threat to the well-being of an individual and his/her closest socio-professional environment. As for the lowered involvement in relationships, also referred to as depersonalization or cynicism (Maslach, Leiter, 2010, 2011), an surprising and unexpected result was observed among the subjects representing the higher education sector. As much as $19 \%$ of academic teachers report that their involvement in occupational relationships is highly disordered, and $72 \%$ of them is declaring the average level of involvement, which is still an alarming figure bearing in mind how dangerous the issue in question is. This means that the professionals dissociate themselves from their working environment, draw away from social relations and let the quality of working relations deteriorate. Furthermore, this area of burnout clearly exposes a cynical and hostile attitude towards service recipients, which leads to difficulties in interaction between a subject and his/her working environment. The findings conclude that academic professionals who are expected to demonstrate professional and educational competences (thus expected to hold high educational standards and share their knowledge with students) are having serious problems with functioning in this area effectively. In comparison with higher education professionals, only $8 \%$ of the healthcare workers and $11 \%$ of the teachers achieved a high score within this dimension. A low level of depersonalization and impaired involvement was declared by $35 \%$ teachers and $9 \%$ of the higher education professionals. The analysis of the findings has provoked many questions about the reasons for such results in the
higher education sector. One of the hypotheses that needs further confirmation is whether the issue may result from requirements that have been imposed upon academic teachers. There are high and strict expectations that they would undertake research work, while often being overwhelmed with teaching (which is not a main criteria during the performance appraisal at Polish universities). Meanwhile, the teaching and bureaucratic duties prevent the academics from concentrating on the more scientific and experimental aspect of their work. It seems that the professionals from higher education sector will benefit from attending attractive trainings or conferences dedicated to the topic of stress coping strategies and tackling challenging occupational situations (the subjects were asked about their development needs in the further part of the original burnout perception questionnaire). It is evident that this professional group could suffer from a deficiency in interpersonal skills, which would help them overcome challenging situations involving their students or coworkers. While healthcare workers and teachers attend trainings and seminars quite often, it is not so when it comes to higher education. There is still no qualitative support that would develop teaching and mentoring skills, which are essential to succeed as an academic teacher.

An interesting finding emerged while analyzing the level of lowered professional selfefficacy, a combination of low self-confidence and a sense of effectiveness in handling day-to-day working obligations. Only $7 \%$ of the academic teachers report a high level of this indicator of burnout; $19 \%$ of the respondents declared a belief that their level of professional effectiveness is high. By comparison, $11 \%$ of the subjects from the healthcare sector received a high score and $20 \%$ received a low one. In the group of school teachers $13 \%$ is facing a high sense of ineffectiveness at work, while $24 \%$ reported being satisfied with their effectiveness and performance. The results concerning this indicator of burnout raise another question regarding the group representing the higher education sector: the academic teachers feel rather effective or highly effective in professional terms but, at the same time, they got high scores in the dimension of lowered involvement in working relationships. One possible explanation is that, although they had been asked to assess their work in general, the surveyed academic teachers concentrated only on the effects of their research work (which seems quite implausible given their range of responsibilities). It may also be that the findings illustrate a narrow perspective of the academic teachers (when it
comes to assessing professional effectiveness) and a tendency to overestimate one's results during the interview.

Another aspect of burnout that was examined during the survey referred to the assessment of job satisfaction, which consisted in diagnosing the level of work disappointment and the possibilities of self-fulfillment. The highest score and the least positive results were observed among the higher education professionals. While as much as $93 \%$ of the academics are disenchanted with their work at a moderate level ( $12 \%$ at a high level), the figure is lower among the healthcare workers ( $70 \%$ ) and the school teachers (78\%). This dimension of burnout puts emphasis on the negative feelings of subjects, which are closely related to their experiences and existential beliefs. These are aroused when a person experiences a dissonance between the realities of work and aspirations combined with values, that simply cannot be satisfied in a particular workplace environment.

By using the results of LBQ Questionnaire an attempt was made to classify the homogenous groups on the basis of experiencing the phenomenon of burnout in the four analyzed areas. In this regard a two-step cluster analysis was used ${ }^{3}$. After applying a procedure with automatic selection of number of clusters five groupings were filtered out. In the opinion of the authors a further analysis of the results reveals an interesting classification. The classification is statistically reliable due to the fact that the criteria of cohesion and separation are fulfilled.

Table no. 2 TwoStep Cluster Analysis - an evaluation of the quality of the classification

| No. of <br> clusters | Bayesian informatoin <br> criterion (BIC) | Zmiana BIC | Iloraz zmiany <br> BIC | Iloraz miary <br> odległości |
| :---: | ---: | ---: | ---: | ---: |
| 1 | 1050,145 |  |  |  |
| 2 | 888,587 | $-161,558$ | 1,000 | 1,230 |
| 3 | 764,760 | $-123,826$ | 0,766 | 1,195 |
| 4 | 667,672 | $-97,088$ | 0,601 | 1,491 |
| 5 | 615,838 | $-51,834$ | 0,321 | 1,637 |

Source: own calculations

[^2]

Chart no. 1: TwoStep Cluster Analysis - an evaluation of the quality of the classification Source: own calculations

Three clusters out of five turned out be very cohesive (compare chart no. 2): one of the clusters grouped the respondents with high scores in every area and virtually with no low scores. Another cluster aggregated the respondents with mostly low scores and with no high scores. There was also a cluster which grouped only the respondents with middle scores on the burnout scale. In order to verify whether there are some differences between the professional groups in terms of burnout further analysis included the respondents that had been classified to two very contrasting clusters (cluster no. 1 and no. 4). The chart no. 3 displays the deviations from the expected representation of the respondents in particular professional groups. It has been assumed that the expected participation of the respondents in a cluster is proportional to its size and reflects the representation of a given cluster (value $=1$ ). A situation when there is more respondents from a given professional group than expected is called overrepresentation (value >1). Underrepresentation is the exact opposite of overrepresentation (value $<1$ ). It is worth noting that there are significant deviations regarding the higher education sector professionals - the overrepresentation in the cluster no. 1 (+26\%) and the underrepresentation in the cluster no. 4 (-35\%).


Chart no. 2. TwoStep Cluster Analysis - the most characteristic clusters.


Chart no. 3 Overrepresentation / underrepresentation of the professional groups in the cluster no. 1 and 4.
Source: own calculations.
Note: MC - medical care, ED - education, HE - higher education.

## The results of the analysis of the data gathered by applying the original questionnaire

The scope of the analysis embraced the responses given in answer to the questions in the original questionnaire, which are related to the occurrence of the symptoms of burnout. The authors were particularly interested to find answers for the questions regarding:
type of work (question no. 3)
the respondents' understanding of burnout and its symptoms (question no. 7) the importance of the topic of burnout in a given professional group (question no. 12)
difficultness in admitting to be burned-out by using formal means (question no. 14)
The questions measured the intensity level of a particular factor on a 11-level scale (from 0 to 10). The table no. 3 displays the mean values received for each question, respectively for the research sample and for the professional groups.

Table no. 3 The mean values for the selected questions of the original questionnaire

| No. | Question | Sum | MC | ED | HE |  |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: |
| Type of work |  |  |  |  |  |  |
| 3a | High emotional stress | 5,71 | 6,42 | 5,48 | 4,93 |  |
| 3b | Great physical strain | 4,43 | 6,29 | 3,02 | 3,23 |  |
| 3c | I am mostly responsible for my work results | 6,48 | 6,45 | 6,26 | 6,74 |  |
| 3d | My work involves contact with others | 9,53 | 9,57 | 9,63 | 9,37 |  |
| 3e | A stressfull relationship with a supervisor | 4,00 | 4,41 | 3,80 | 3,60 |  |
| 3f | Stressfull relationships with coworkers | 3,26 | 3,62 | 2,72 | 3,30 |  |


| 3g | Too much beaurocracy | 7,16 | 7,10 | 7,33 | 7,07 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 3h | A dynamic environemnt/ a necessity to adapt | 6,53 | 6,59 | 6,52 | 6,47 |
| 3 i | An adequate remuneration for work | 4,13 | 4,18 | 3,80 | 4,42 |
| 3j | Little success at work | 5,01 | 5,55 | 5,02 | 4,26 |
| 3k | I feel that my work suits me | 8,24 | 8,25 | 8,30 | 8,14 |
| 31 | I maintan a work-life balance | 6,28 | 6,98 | 6,35 | 5,16 |
| 3 m | I am satisfied with my work | 7,50 | 7,60 | 7,33 | 7,53 |
| 3 n | I would like to change my job | 3,18 | 3,41 | 3,13 | 2,91 |
| 30 | I wish I could take some time off work | 6,76 | 6,79 | 7,46 | 5,98 |
| 3p | I can influence the way I do my work | 7,55 | 7,37 | 7,57 | 7,81 |
| A subjective assessment of the knowledge of burnout |  |  |  |  |  |
| 7a | I have sufficient understanding of burnout | 7,35 | 8,23 | 6,72 | 6,77 |
| 7b | I could recognize the symptoms of burnout if they affect me personally | 7,21 | 7,95 | 7,02 | 6,35 |
| 7c | I am able to tell whether somebody else shows the symptoms of burnout | 6,60 | 7,47 | 6,17 | 5,86 |
| Burnout is a serious problem among the members of my professional group |  |  |  |  |  |
| 12 | I agree with that opinion | 7,68 | 7,63 | 7,73 | 7,70 |
| It is hard to openly admit to being burn-out at my workplace |  |  |  |  |  |
| 14 | I disagree with that opinion | 6,17 | 5,68 | 5,75 | 7,19 |

Source: own calculations.
In the analysis an attempt was made to assess to what extent the factors contributing to the occurrence of the symptoms of burnout are heterogeneous. In order to validate the significance of the differences between the importance of the analyzed factors (that had been observed among the subgroups of the respondents) an one-factor analysis of variance has been used ${ }^{4}$. With the goal of choosing the best way to calculate the empirical statistics in mind, the analysis was preceded by assessing the equality of variances in the analyzed subgroups ${ }^{5}$ (SPSS, v. 24.0, Levene's test). The equality of variances has been observed in questions $3 c, 3 i$ and $3 p(a<=0,05)$. To identify the differences between the professional groups that would be statistically significant, multiple comparison follow-up tests were used ${ }^{6}$ (SPSS, ver. 24.0, Sheffe's test, Tukey's test, Tamhane's test and Dunnett's test).

[^3]In the case of question no. 3, which considered the type of work, Levene's test showed significant differences between mean values for four categories - 3a, 3b, 3j and 31 ( $a<=0,05$ ). Those differences mainly concerned the perception of these categories by the healthcare and higher education respondents (the significance of differences has been identified in all four categories). Additionally, the difference of mean values between the healthcare and education professionals have also been diagnosed to be significant for category 3b.

The question no. 7, which refers to the self-assessment of one's knowledge of burnout, showed no statistically significant equality of variances for any category (a $<=0,05)$. Nevertheless, for all the categories the differences between mean values were significant. In questions 7a and 7c the statistically significant differences concerned the following pairs: the healthcare versus education sector and the healthcare versus higher education sector. In question 7b those differences were observed solely between the healthcare and education sector.

A test for question no. 12, regarding the scale of the burnout problem in a particular professional group, diagnosed no significant differences between the means of the observed pairs. In question no. 14, where the respondents were asked to assess how difficult it is to admit to being burn-out at their workplace (no equality of variances), the significant differences between mean values ( $a<=0,05$ ) refer to the context of higher education, where admitting to one's burnout is more problematic than in other sectors.

To observe the differences between the surveyed professional groups in terms of burnout symptoms (but also in terms of the factors that can minimize the negative effects of this syndrome) the answers to following questions were taken into account: question no. 4 (How often do you feel like not going to work, when thinking about your current job?) and question no. 5 (Do you take part in any leisure or personal development activities, other than your professional and domestic duties?). The results of the survey are displayed on chart no. 4 and no. 5.

[^4]

Chart no. 4: The frequency of feeling aversion to work Source: own calculations.

Most of the people who never or rarely experience aversion to work can be found among the representatives of higher education (56\%), education (24\%) and healthcare ( $36 \%$ ). The most frequent answer given by the health service employees was "rarely". It is worth emphasizing that the answers of the education professionals did not include neither "never" nor "constantly".


Chart no. 5 Leisure and personal development activities (hobby)
Source: own calculations
What is both intriguing and disturbing is the fact that the healthcare professionals engage in considerably less activities devoted to leisure and personal development
than others. What is also unsettling is that as much as $11 \%$ of the respondents admitted that they have no alternative to work and domestic responsibilities.

## Factor analysis - question no 3 (type of work)

The analysis distinguished 4 factors that explain approx. $55 \%$ of the change in the analyzed dimensions. One of the factors saturates over 9 of the assessed dimensions of work (it is worth considering reducing their number in future tools of analysis)

1. Factor: heavy burden at workplace (mainly stress but also working relationships, bureaucracy and changes in an environment correlate with this factor) and a wish to escape from work (which negatively correlates with job satisfaction)
2. A feeling that one's work fits a person's character (which positively correlates with job satisfaction)
3. A sense of influence on one's work and/or the achieved results.
4. No benefits from work - this factor mainly concerns inadequacy of the remuneration and work (but at the same time less saturated with the factor and not

The aforementioned factors share being highly emotionally saturated (assessment/ emotions).

Two dimensions that were less saturated with the discussed factors are more objective traits - contact with others at workplace and self-assessment in terms of work-life balance.

| Component |  |  |  | Type of work |
| :---: | :---: | ---: | ---: | :--- |
| 1 | 2 | 3 | 4 |  |
| 0,752 | 0,332 | $-0,097$ | $-0,144$ | High emotional stress |
| 0,604 | 0,292 | 0,043 | $-0,223$ | Great physical strain |
| $-0,012$ | 0,422 | 0,674 | $-0,182$ | I am mostly responsible for my work results |
| $-0,119$ | 0,476 | $-0,338$ | $-0,393$ | My work involves contact with others |
| 0,692 | 0,172 | $-0,242$ | 0,172 | A stressfull relationship with a supervisor |
| 0,600 | 0,197 | $-0,075$ | 0,435 | Stressfull relationships with coworkers |
| 0,693 | 0,353 | $-0,144$ | $-0,062$ | Too much beaurocracy |
| 0,638 | 0,290 | 0,110 | 0,039 | A dynamic environemnt/ a necessity to adapt |
| $-0,265$ | 0,264 | $-0,102$ | 0,623 | An adequate remuneration for work |
| 0,260 | 0,222 | 0,050 | 0,454 | Little success at work |


| $-0,405$ | 0,595 | $-0,309$ | $-0,080$ | I feel that my work suits me |
| ---: | ---: | ---: | ---: | :--- |
| $-0,424$ | 0,179 | $-0,241$ | $-0,087$ | I maintan a work-life balance |
| $-0,604$ | 0,495 | 0,061 | $-0,111$ | I am satisfied with my work |
| 0,558 | $-0,437$ | 0,162 | $-0,087$ | I would like to change my job |
| 0,644 | $-0,083$ | 0,174 | $-0,260$ | I wish I could take some time off work |
| $-0,262$ | 0,402 | 0,670 | 0,162 | I can influence the way I do my work |

## A comparison of the results of the LBQ and the original questionnaire

Questions no. 4 (the frequency of feeling aversion to work) and no. 5 (participating in leisure activities except for work and domestic responsibilities), that had been the part of the original questionnaire, were used by the authors to test the concurrence of the traits described in those questions and the level of burnout. To this end a cross table was used (SPSS, ver. 24.0) together with the Chi-Square statistic. The results are:

1. In the case of question no. 4 there is an observable positive correlation between the level of work aversion and the level of burnout in the areas of: exhaustion, disappointment and effectiveness.
2. In the case of question no. 5 it is visible that the fact of having a hobby influences the level of burnout in the area of disappointment and effectiveness, making it lower.

The table no. 4 displays the contingency table containing the aforementioned questions and the aspects of burnout (where the correlations have been observed) together with the results of Pearson's chi-squared test.

Table no. 4: The contingency tables comparing the questions (no. 4 and no. 5) and the areas of burnout.

|  | The frequency of feeling aversion to work |  |  |  |  |  | Total |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Never | Very <br> rarely | Occasionally | Often | Constantly |  |  |
| No. of respondents |  |  |  |  |  |  |  |
| Disappointment <br> level: <br> Chi- $=36,544$ <br> $\alpha=0,000$ | low | 8 | 10 | 11 | 2 | 1 | 32 |
|  | medium | 7 | 31 | 51 | 7 | 1 | 97 |
| high | 1 | 1 | 11 | 10 | 1 | 24 |  |


| Exhaustion -level: | low | 6 | 7 | 7 | 1 | 1 | 22 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Chi-square = | medium | 10 | 34 | 60 | 9 | 1 | 114 |
| $\alpha=0,000$ | high | 0 | 1 | 6 | 9 | 1 | 17 |
| Sum |  | 16 | 42 | 73 | 19 | 3 | 153 |
| Effectiveness level: <br> Chi-square = 23,082 $\alpha=0,003$ | low | 7 | 9 | 16 | 0 | 0 | 32 |
|  | medium | 7 | 32 | 51 | 13 | 2 | 105 |
|  | high | 2 | 1 | 6 | 6 | 1 | 16 |
| Sum |  | 16 | 42 | 73 | 19 | 3 | 153 |


|  |  | Participation in leisure activities |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Constantly | Occasionally | Never |  |
|  |  | No. of respondents |  |  |  |
| $\begin{aligned} & \text { Effectiveness - level: } \\ & \text { Chi-square }=14,037 \\ & \alpha=0,007 \end{aligned}$ | Low | 18 | 11 | 3 | 32 |
|  | Medium | 49 | 51 | 5 | 105 |
|  | High | 2 | 10 | 4 | 16 |
| Ogółem |  | 69 | 72 | 12 | 153 |
| $\begin{aligned} & \text { Dissappointment - level: } \\ & \text { Chi-square }=14,105 \\ & \alpha=0,007 \end{aligned}$ | Low | 13 | 19 | 0 | 32 |
|  | Medium | 47 | 44 | 6 | 97 |
|  | High | 9 | 9 | 6 | 24 |
| Sum |  | 69 | 72 | 12 | 153 |

Source: own calculations

Questions no. 3 and 4 were used for searching independent variables in discriminative models. The models were constructed for the whole sample as well as for the particular representatives of the professional groups. Due to the unsatisfactory relevance of the classification, which ranged from $30 \%$ to $74 \%$, the models cannot be recognized as having a desirable quality. The highest accuracy was observed in the area of exhaustion and disappointment, the lowest in the area of involvement. As for the professional groups, the education sector recorded the highest accuracy.

With an aim to identify the key factors that determine the level of burnout in its particular dimensions a logistic regression was used (SPSS, ver. 24.0). The results of the LBQ that were related to the level of burnout in a given dimension served as dependent variables. The results were aggregated into two categories: 0 - a respondent is characterized by a low level of burnout (scores 1-5), 1 - a respondent is characterized by a high level of burnout (scores 6-10). The set of the potential explanatory variables included two demographic characteristics (namely age and
seniority) and the answers to the questions from the original questionnaire (questions no. $3 a-3 p, 5,7 a$, which can be found in table no. 3 and on graph no. 5).The demographic characteristic „sex" was not included in the analysis given the small number of men among the survey participants. The answers to question no. 5 were grouped into two categories: 0 - a respondent never or rarely engages in activities other than professional and domestic responsibilities, 1 - an respondent regularly engages in activities other than professional and domestic responsibilities. In order to find a model that would be significant in terms of F-statistics (the Wald test), the method of stepwise logistic regression was employed. The critical value of the Fstatistics was at the significance level $a=0,05$ during forward selection, and $a=0,10$ during backward elimination. To validate the goodness of fit two tests were used: the Nagelkerke $\mathrm{R}^{2}$ and the Hosmer-Lemeshow test. The latter compares the used model and the null model (with an intercept parameter only) in terms of the relevance of classification (cf. e.g. Gruszczyński, 2002; Heckman, Leamer, 2001).

The graph below (no. 6) presents the received models for the particular dimensions of burnout and for the professional groups in the form of graphs. The explanatory variables are displayed from top to bottom, in the order they were being added to the model. Under each graph, which represents a combination of a dimension of burnout and a factor (factors) that has (have) influence on it, there are two other parameters. The value of the parameter $B$ is attributed to a given independent variable. The value of the parameter $\exp (B)$ measures how the increase of a predictor by one point will change the probability of transition from category 0 (a low level of burnout) to 1 (a high level of burnout).

## Exhaustion (W)

Healthcare

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Higher education


| $3 a$ |
| :---: |
| 0,512 |
| 1,668 |


| 3a | 3d | 3 o |
| :---: | :---: | :---: |
| 0,687 | - | 0,504 |
|  | 1,709 |  |
| 1,988 | 0,181 | 1,655 |

Involvement (I)

Healthcare


| $3 a$ |
| :---: |
| 0,232 |
| 1,262 |

Healthcare

The model's goodness of fit was insufficient

Education


Effectiveness (E)
Education


Higher education


| 31 | 5 |
| :---: | :---: |
| - | - |
| 0,437 | 2,199 |
| 0,646 | 0,111 |

Higher education


## Disappointment (D)

Healthcare


| 3 m | $3 a$ |
| :---: | :---: |
| - | 0,228 |
| 0,350 |  |
| 0,704 | 1,256 |

Education


| 3 k | 3 b |
| :---: | :---: |
| - <br> 1,005 | 0,322 |
| 0,366 | 1,380 |

Higher education


Graph no. 6: The factors influencing the level of burnout. Source: own calculations.

Stress was a factor that played the biggest role as a predictor in the logit models (question no. 3a). It occurred three times in healthcare and two times in education, whereas it did not occur in higher education at all. The model for disappointment in healthcare, apart from revealing a variable referring to high stress, also showed a variable that measures the level of work satisfaction (question no. 3m). An important factor in education was whether a respondent feels that his/her job suits him (question no. 3 k ). In higher education the highest importance was attributed to maintaining work-life balance (question no. 3I) and the level of understanding of burnout.

The measured parameters could be interpreted as follows: the dimension of exhaustion, the model for healthcare, question no. 3 a : the values of $B=0,512$ and $\exp (B)=1,668$ mean that a growth of the stress level by one measure results in $67 \%$ higher risk of transferring from the category of the low level of burnout to the category of the high level of burnout. The dimension of involvement, the model for higher education, question no. 5: the levels of parameter $B=2,199$ and $\exp (B)=0,111$ mean that the probability of experiencing a high level of burnout is lower by $90 \%$
among the people who have got "a regular escape" from the daily work and domestic routine, i.e. hobby.

## Part 2 Research on the group of employers

Two types of primary research for this group were carried out in the project. The first consisted of individual in-depth Interviews (IDI), which comprised two target groups:

Representatives of the employers from the industries that are within the scope of the project, i.e. education ( 6 people), higher education ( 5 people), health care (5 people).

Occupational health medical practitioners (10 people).
Altogether, the sample included 26 people. The research was conducted on May and July 2017. The employers came from Dolnośląskie voivodship, while the research on medical practitioners was carried out in Mazowieckie voivodship. The second type of research was CAPI questionnaire surveys in 30 cases, followed by 10 in education, higher education and medical care. The total sample was 30 persons. The research was conducted in July and August 2017. The respondents were employees of the said branches from Lower Silesia and Silesia.

## IDI Main remarks

The research on the employer's group embraced the representatives of different institutions that are the part of the job market in Poland. In case of health care the interviewers were decision-makers from hospitals and medical clinics (covering a rehabilitation center, a community self-help home for people with intellectual disabilities and a hospice).In the field of education the respondents were principals / vice-principals of all the types of schools. The group of higher education respondents included rectors, deans or chancellors of universities or other higher education institutions. In case of education and higher education the representatives of trade unions were also interviewed. During the phase of determining the sample an effort was made to include both the representatives of public and non-public institutions.
Our research generated a great interest among the respondents. They pointed out that the topic is innovative in terms of Polish job market and that there is a
considerable need to study it with regard to burnout. It has been said that the problem is serious and that it is either omitted or even disregarded (especially in higher education). No action is taken to diagnose the reasons behind the syndrome of burnout. Most of the respondents claimed that the phenomenon is escalating in Poland. Sources of knowledge on burnout: mainly inside knowledge, sharing experiences, own observations, press, trainings (mainly health care and education). The respondents are not familiar with any solution that helps to diagnose, prevent or challenge the syndrome of burnout. The teachers are given a chance to take a sick leave thanks to the Teacher's Charter (although there are signals that this option may soon come to an end). (Medical practitioners will not recommend holiday solely because of burnout. Nevertheless, a person may address the problem of burnout during holiday if he / she experiences the symptoms and is aware of them.) This mainly refers to energetic and creative people. All of the respondents remarked that there is a growing need to take preventive action and to cope with the syndrome of burnout. That is not only because of an individual's well-being but also due to the consequences that this phenomenon evokes in institutions. The most common symptoms among health care workers are: depersonalization of patients, being indifferent to suffering and pain, verbal aggression, a lowered sense of success at work, a feeling of helplessness. In higher education these include a lowered sense of success at work and loss of job satisfaction.

There was a significant difference in attitudes toward an employee and burnout among the representatives of public and private institutions (only seen in higher education and health care). In private institutions a person is seen as a valuable asset with potential for growth and the staff is viewed as a profitable resource that should operate in friendly environment. (Nevertheless, a claim that an employer is responsible for an employee's burnout would be a far-fetched conclusion. The important factors are good HR, respecting labor law, adequate remuneration.)

Burnout risk factors:
poor management (highlighted in higher education and education) - work organization plays a vital role. The problem is that managers have not sufficient training or expertise, which is amplified by their authoritative management style
personal factors - they could be important especially in case of ambitious employees (who are more vulnerable to burnout) that had become sort for "enemies" - ignored or even disregarded; "those who sit or lie won't burn out"; if somebody is willing to act and finds a necessary support, he or she is protected against burnout taking (receiving) too many tasks
being controlled by others (principal / general manager, coworkers, parents, pupils)
bureaucracy, change, insecurity
conflicts with a supervisor, colleagues, parents, families
a feeling of being unappreciated, little success
poor time management (leisure, self-development, physical activity accidental, rare)
a lack of sense of community
poor knowledge of the phenomenon, no obligatory trainings regarding burnout (coping in difficult situations)
no ability in maintaining work-life balance
age and seniority - there are different opinions: either positive correlation between burnout and burnout and seniority or it does not matter - after changing one's work a person founds new resources of energy

Education - being bored with one's work can affect those teachers who are not creative, who are not improving their skills, who use "traditional" methods and thus who get unsatisfactory results. Creative teachers, that are motivated to work and take on new tasks, often meet resistance, are isolated in their pursuits, have their ambitions limited, cannot fulfill their professional goals and plans. Those innovative teachers are also affected by burnout, which seems particularly problematic given their original attitude and competences.

Higher education - all of the respondents were aware of the omnipresence of the phenomenon of burnout in higher education and the general attitude towards the issue. That attitude defined burnout more as a taboo than a problem generating consequences for higher education institutions. Objectively speaking, burnout is a widespread phenomenon in Poland but there is no awareness of the issue among
employees, employers, media and politicians. Most of the interviewers held an opinion that about $2 / 3$ of academics are affected by the syndrome after reaching the point of 20 years of professional experience in higher education. Another problem is that there are additional issues: no "real" management at universities, tenure of office, unprofessional human resources policy, short-sited policies, lack of competence and diplomatic attitude, change of attitude when the management changes, a conviction that everything can be "fixed" by either a warning or a bonus.

Health care - the question becomes increasingly important, which is closely related to growing pressure. The employers expect the staff to be flexible all the time and often abuse their right to demand flexibility from their employees. In the past work schedule was transparent ( 80 's), while presently the schedules are more demanding. What makes the issue more alarming is the fact that given their low income the employees take 2-3 full-time jobs, which results in chronic fatigue, no chance to balance their work with leisure activities and - consequently - in burnout and depression.

Social care - key factors that contribute to lower motivation are: financial issues, a heavy burden on an affected person's family, not noticing small improvements among clients (patients, students, pupils), no spectacular success during the assessment of pupils (???). Growing expectations as to the quality of care, families making more claims (mainly of parents), better knowledge as for the possibilities and forms of support.

A high awareness of the necessity to apply preventive action in favor of one's employees (mainly job rotation team-building activities).

Occupational medicine - usually, the issue of job satisfaction is not within the scope of occupational medicine. It is more probable it will arise during a visit at general practitioner's. Normally, it is a patient who brings up the issue in question first. The prevailing attitude in occupational medicine today is that a patient has to commence work and get necessary documentation. To put it simply, those who visit an occupational health medical practitioner are people who want to work. It seems that if those people had any problem with motivation for work they would probably choose not mentioning it to an occupational medicine practitioner rather than admitting to it. A patient cannot be certain whether admitting to psychological issues
will not cost him losing a medical certificate that is crucial to commencing work. The issue of job satisfaction is discussed when a disabled person is employed.

Visitations at workplace are focused on health and safety issues, as well as on statistics regarding work accidents.

There was no an occupational medicine office (among the respondents) that would receive a patient who reported the symptoms of burnout.

The phenomenon of burnout is not sufficiently known among the occupational medicine practitioners, who usually do not perceive the problem at all. The topic of burnout should be included in trainings dedicated to general practitioners, not necessary to occupational medicine practitioners. Trainings that would embrace this matter are extremely rare. And the very occupational health medical practitioners are not really interested in them. What they do is examining a patient - they usually fill in the forms that an employee had received from an employer. There are voices that unfairly narrow down the problem of burnout to financial issues and to a belief that it mainly affects professions with lower income. Those opinions illustrate how poor the understanding of burnout may be. For example - an opinion saying that the better the position the lesser the burnout, because consumption of goods serves as remedy for the symptoms.

## CAPI - main findings

The research was carried on the group of employers and staff responsible for employing / dismissing employees or having an influence on hiring policies (all of them will be described as "employees"). The sample embraced 30 people (10 participants from each industries): health care, education and higher education professionals. Overall, 7 respondents represented private institution, while the remaining 23 represented public institutions. The research took place on June and July 2017. The respondents' place of residence were Dolnośląskie and Śląskie voivodship.

The aim of the study was: to identify stress factors at workplace in particular industries; to assess the level of understanding of the phenomenon of burnout among employers / employees and to assess how recognizable its symptoms are; to assess the knowledge of coping strategies regarding burnout; to identify potential
strategies that would help to prevent burnout; to assess the effectiveness of present / possible solutions that are / may be implemented.

In each of the professional groups (industries) employees are aware of the fact that the problem of burnout is an alarming phenomenon. Most of the respondents scored at least 5 points on a 10-level scale; the highest mean values were noticed in higher education. Admitting to being burn-out at workplace is particularly difficult in education - both in higher education and other schools of the education system. Most of the participants express the opinion that their institutions will not take any action if an employee is diagnosed with burnout. In case of burnout the respondents pointed to a few most effective coping strategies to fight the syndrome: leisure / holiday, finding a hobby, attending psychological therapy and getting to know how to handle stress / work overload. Leisure / holiday was viewed as the most effective means to minimize burnout. Contrary to the group of employees neither of the employers indicated such activities as: sick leave, addictive behavior (e.g. alcohol, sex).

Most of the respondents believe that there are no special solutions that would aim at preventing burnout - neither in particular professional groups nor in the institutions that were taken into account during the research. It has been also discovered those institutions take no preventive actions whatsoever. At the same time, according to the respondents it is possible to take preventive action that would be easy to apply. Nevertheless, $1 / 5$ of the participants were convinced that those kind of initiatives will not make any difference at their workplace. Among the preventive actions that had been listed in the questionnaire the best rated strategies were:
to organize some activities outside working hours, like sport or hobby classes; to allow an access to psychologist / therapy that will immediately help to cope with stress / problems; to classify burnout as one of the occupational disease; to organize support groups for suffering from the syndrome; to change organizational culture; to include information on burnout in formal education curricula.

It is important to note that the priorities in the aforementioned list varied depending on a professional group. The participants claimed that it is legitimate to introduce a complex programme for the prevention of burnout and most of them believe that it is extremely important to do so. The issue is more complicated given the present
circumstances, notably in higher education. Similar voices prevail when considering an option of bringing the programmes into the respondents' organizations / institutions. It seems unrealistic to implement the prevention programmes in higher education but in case of health care it seems reasonable.

There is a partial overlap in the employers' opinions on the factors contributing to the process of burnout, in other cases they vary for particular industries:

Health care: mainly excessive stress, inadequate remuneration for work, little success at work, difficulty in maintaining work-life balance.

Education: mainly excessive stress, much bureaucracy, dynamic environment and the necessity to adapt, inadequate remuneration for work
Higher education: mainly a stressful relationship with a supervisor, much bureaucracy, dynamic environment and the necessity to adapt, little success at work, difficulty in maintaining work-life balance.

Usually employees does not report being exhausted with work (especially the higher education professionals). Burnout is most frequently reported by education workers. The institutions employing workers from the industries that are within the scope of the project provide any activities outside working hours very rarely ( $2 / 3$ of responses).

The employers are highly convinced that they had a good understanding of burnout in respect to the very phenomenon and the skills necessary to recognize the symptoms (among themselves and among their employees). The most commonly recalled symptoms of burnout were: being reluctant to take action, no motivation to engage in professional tasks and loss of job satisfaction.

The major sources of knowledge of burnout are: observations of colleagues, personal experience and professional literature (although higher education workers mentioned press and internet in the first place). According to the respondents a person that suffers from the symptoms of burnout should seek help among: psychologists, supervisors and significant others (family, friends). The higher education professionals also pointed to colleagues as a good source of knowledge of burnout.

The majority of employers is interested in taking part in trainings devoted to the prevention of burnout at workplace. Contrary to the majority, only 4 out of 10 academics consider participating in such workshops. The following issues are the ones that the participants of the survey found the most interesting:

Diagnostics of burnout
Prevention of burnout at particular job posts
Organizational stress and coping strategies
Shaping politics regarding burnout
Knowledge of burnout regarded as a phenomenon
Most of the employers found reasonable the fact that the employees representing their institutions should take part in programmes devoted to the prevention of burnout. The following list enumerates the topics that were mentioned (starting from the most popular responses):

Coping with stress / relaxation
Maintaining work-life balance
Knowledge of burnout
Coping with difficult situations at workplace (that are typical for a specific job post)

Working with patients / clients that are problematic

## Concluding remarks

The present research on the phenomenon of burnout, that has been simultaneously carried out in healthcare, education and higher education, is an attempt to identify similarities and differences between three professional groups. It provides the answers to the initial research questions. The following points can be made:

The phenomenon of burnout is widely perceived in all of the analyzed professional groups. This claim is supported by the high LBQ Questionnaire results as well as the responses to the selected questions from the original questionnaire (especially questions no. 7, 12 and 14)

Burnout is a phenomenon that is perceived by the respondents inconsistently. The main differences concern the level of understanding of the syndrome (the healthcare professionals demonstrated the highest one) and the level of difficulty in informing an employer of burnout formally.

The outcome of the two-step cluster analysis additionally support a conclusion that burnout is a common issue among the surveyed professionals and provides justification for deeper exploration of the phenomenon, especially in higher education. Academic professionals experience the typical symptoms of burnout. What is more, the results of the analyses demonstrate that the group is distinctly different from other groups. It achieved high scores in most of the areas (the LBQ Questionnaire). On the other hand, it is characterized by the lowest level of work aversion.

The main factors responsible for the differences in the perception of burnout in the surveyed groups are associated with the respondents' type of work, which is illustrated by the answers to the question no. 3 of the original questionnaire. Despite the noticeable differences in the perception of burnout among the professional groups subjected to the survey, the adoption of the automatic selection procedure revealed three cohesive clusters that included respondents of diverse occupations. This means that the employees of the analyzed professions probably share traits that influence the shape of the
process of burnout in a similar way. Undoubtedly, a direct contact with another person is one of those shared traits.

The findings of this study suggest that the problem of burnout in Poland requires further research. First of all, it can include:


#### Abstract

Extending the scope of research in higher education, as there have been no studies dedicated to this professional group so far. The current preliminary study shows that the group have complex nature - although it has a high status in Poland its members feel underestimated and disappointed. Such conditions can lead to an escalation of the problem in the coming years. Carrying out a study of the employers' perception as well as comparing the employers' and employees' opinions in terms of burnout (in healthcare, education and higher education).

Comparing the international research on burnout.


Given the aims of the international research project that has been a framework for this paper (building an useful model for the prevention of burnout ) what seems to be particularly important is to conduct a longitudinal research that would illustrate the dynamics of the respondents' burnout before and after taking the preventive action.

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[^0]:    ${ }^{3}$ In 2013 a team from the Psychological Test Laboratory of the Polish Psychological Association conducted standardization and validation studies among five professional groups who are engaged in helping other people (teachers, nurses, medical professionals, uniformed services, in total $N=995$ people with at least one year of seniority, aged 19-65, from all around Poland).

[^1]:    ${ }^{4}$ Sten scores are often used in psychological tests. It consists of 10 levels and it structure guarantees that the median equals 5,5 and the standard deviation equals 2 .

[^2]:    ${ }^{3}$ TwoStep Cluster Analysis is to be found, among others, in SPSS v. 24.0. On the one hand it is a method which allows to include categorical and continuous variables, on the other hand it is proof against not meeting the assumptions of normal distribution and the independence of the input data (Kwiatkowska, Załuska, Dziechciarz 2007, SPSS 1999).

[^3]:    ${ }^{4}$ One-factor analysis of variance (ANOVA) is a statistical test which is employed in comparing means of many groups. It may be regarded as an "extension" of Student's $t$-test, which is limited to analyzing the differences only between two groups. ANOVA is free from this limitations. If there is a need to compare more than two groups, instead using the $t$-test several times, an one-factor analysis of variance is applied.
    ${ }^{5}$ Assessing the equality of variances in analyzed subgroups is one of the assumptions that has to be met while using the tests for independent samples. If the assumption is not valid, then a variation of the $t$-test that does not require equal variances is used (see Bedyńska, Cypryańska, eds. (2013) p. 182-183).
    ${ }^{6}$ In ANOVA the value of F-statistic is not sufficient to show which groups are different from one another. What is known is that there is a difference between them. In order to detect where the differences occur it is crucial

[^4]:    to carry out multiple tests, the so-called post hoc tests. Those tests give answer to a question regarding which of the analyzed groups are different from others.

