

TEACHER JOB BURNOUT AND PSYCHOSOCIAL WORKING CONDITIONS IN SCHOOL

Bartosz SEILER¹, Hanna BORTNOWSKA^{2*}, Agnieszka SEILER³

¹University of Zielona Gora; b.seiler@wez.uz.zgora.pl, ORCID: 0000-0003-0380-746X

²University of Zielona Gora; h.bortnowska@wez.uz.zgora.pl, ORCID: 0000-0002-7327-7524

³The Third High School in Zielona Gora; aseiler@wp.pl, ORCID: 0009-0000-7512-2318

* Correspondence author

Purpose: The aim is to investigate the relationship between teacher burnout and psychosocial working conditions using the Copenhagen Psychosocial Questionnaire (COPSOQ).

Design/methodology/approach: The research process consisted of the following stages: literature analysis, research gap identification, formulation of research questions and hypotheses, selection of the sample and research tools, data collection and analysis, formulation of conclusions, indication of research limitations and directions for future research. The research hypothesis was formulated as follows: H: Teacher burnout is related to psychosocial working conditions in school. The survey research was conducted in 2023 among 128 Polish teachers. In the study it was used the Oldenburg Burnout Inventory (OLBI). Psychosocial working conditions were surveyed using the Copenhagen Psychosocial Questionnaire (COPSOQ).

Findings: The analysis of the relationships between job burnout-disengagement (JB-D) and psychosocial working conditions found a strong negative correlation for three subscales: 'Meaning of work', 'Possibilities for development', 'Quality of leadership'. A moderate negative correlation was observed for the 'Job satisfaction; and 'Social support' subscales. A strong positive correlation of JB-D with 'Quantitative demands' was also found. By examining the relationships of job burnout-exhaustion (JB-E) with individual aspects of psychosocial working conditions, most correlations were negative (with the exception of 'Quantitative demands'). The two identified correlations were strong. As with the JB-D variable, 'Meaning of work' and 'Possibilities for development' were significant while 'Quality of leadership', 'Influence at work' and 'Social support' were less pronounced (a moderate correlation with JB-E was found). A strong positive correlation was observed between JB-E and 'Quantitative demands'.

Research limitations: The studies were of quantitative rather than qualitative nature and resulted from teachers' self-reporting. The selection of the sample was non-random, which means the findings cannot be generalized. The study was also not longitudinal and the data was lagging, which does not permit strong causal inferences. The use of the survey method might lead to common method bias.

Practical implications: The knowledge derived from the research can be useful to school managers in ensuring a work environment for teachers that prevents job burnout and therefore favors increased work performance.

Social implications: The results offer insight into the relationship between the working environment and teacher job burnout. It can provide school managers with a framework for adopting socially responsible measures focused on the well-being of employees.

Originality/value: There were previously no research studies involving Polish teachers that would identify the COPSOQ-measured relationships of job burnout with psychosocial working conditions against the following variables: ‘Quantitative demands’, ‘Influence at work’, ‘Meaning of work’, ‘Social support’, ‘Job satisfaction’, ‘Possibilities for development’, ‘Quality of leadership’, ‘General health’.

Keywords: job burnout, psychosocial working conditions, teachers, school.

Category of the paper: Research paper.

1. Introduction

The teaching profession is perceived as a support activity associated with a high risk of job burnout. Teachers are expected, among many others, to resolve didactic and educational problems, engage in effective teamwork with coworkers, cooperate with parents in the learning cycle, and keep on developing their professional skills. What sets this profession apart is therefore a high level of interactivity. In this context, numerous work-related burdens become apparent. Pyżalski and Merecz (2010) distinguish five such categories of stressors, which are: lack of social support, incorrect work organization, incorrect relations with student’ parents, exposure to pressure from supervisors and coworkers, and poor physical working conditions. In addition, this is accompanied by the depreciation of a teacher’s work in society and the increased risk of diseases, especially circulatory-system and heart diseases (Kretschmann, 2011). We can therefore carve out different groups of factors triggering teacher job burnout: individual, interactive (micro-level), organizational at the meso-level, organizational at the macro-level (systemic), those concerning image/reputation - related to social evaluation.

The article focuses on selected dimensions of the teacher's work environment. The aim is to investigate the relationship between teacher burnout and psychosocial working conditions using the Copenhagen Psychosocial Questionnaire (COPSOQ). The paper consists of the following sections: introduction, literature review, methods, results, discussion, and conclusion.

2. Teacher job burnout

The burnout syndrome was first described in two scientific articles published in 1974. One of them was written by Freudenberger (1974; cf. Ginsburg, 1974) who described the state of being burned out as ‘becoming exhausted by making excessive demands on energy, strength, or resources’ in the workplace (Freudenberger, 1974, p. 159). According to him, staff burnout

is characterized by such physical symptoms as: an exhaustion, a fatigue, frequent headaches and gastrointestinal disorders, a sleeplessness, and a shortness of breath, while behavioral signs include: a frustration, an anger, a suspicious attitude, a feeling of omnipotence or overconfidence, an excessive use of tranquilizers and barbiturates, cynicism, and signs of depression. In the following years, there has been a significant increase in the amount of psychological and medical research conducted in this area. Pines and Aronson (1983, p. 263) defined burnout as 'a state of physical, emotional and mental exhaustion, typically occurs as a result of working with people over long periods of time in situations that are emotionally demanding'. Kahn (1978) stated that burnout results from an individual's pessimistic outlook toward self and others, which gradually leads to psychosomatic exhaustion. The most common definition of job burnout comes from Maslach and Jackson (1981), who defined it as a syndrome consisting of three dimensions: emotional exhaustion, depersonalization and reduced personal accomplishment. Emotional exhaustion refers to the feeling of emotional overload and difficulty in coping with emotions. Depersonalization relates to a cynical, negative or detached response to other people who are usually the recipients of the services or care concerned. Reduced personal accomplishment regards the conviction that it is no longer possible to work effectively with clients or care recipients. Burnout is seen as a process in time: increased coping efforts with external demands leads to emotional exhaustion, which is a trigger for depersonalization, which leads to reduced personal accomplishment, which brings further emotional exhaustion in a vicious circle, etc. (Maslach et al., 2001).

The factors influencing job burnout have been analyzed in various studies. Cordes and Dougherty (1993) categorized burnout-related factors into three following groups: 1. job and role characteristics, 2. organizational characteristics and 3. personal characteristics. Maslach and Leiter (2005) (Demerouti et al., 2001) indicated two groups of factors which dominate the person before burnout. The first group is called situational predictors which include six antecedents: workload, control, award, social network, job fairness, and values. The second group includes individual antecedents such as age, gender, marital status and experience (cf. Bakker et al., 2014; Bakker, Costa, 2014; Shoman et al., 2021).

The consequences of job burnout were also examined. It is a significant predictor of the physical consequences (e.g. hypercholesterolemia, type 2 diabetes, coronary heart disease, musculoskeletal pain, changes in pain experiences, prolonged fatigue, headaches, gastrointestinal issues, respiratory problems, mortality below the age of 45 years) as well as the psychological ones (e.g. insomnia, depressive symptoms, use of psychotropic and antidepressant medications, hospitalization for mental disorders and psychological ill-health symptoms). Job dissatisfaction, absenteeism, new disability pension, job demands, job resources and presenteeism were identified as professional outcomes (Salvagioni et al., 2017; cf. Aronsson et al., 2017; Edú-Valsania et al., 2022; Lizano, 2015; Peterson et al., 2008; Tavella et al., 2021). Ahola et al. (2010, p. 51) concluded that 'burnout, especially work-related exhaustion, may be a risk for overall survival'. Let us add, that organisations are also affected

by employees experiencing job burnout due to increased absenteeism, turnover, reduced interactions with customers and co-workers, decrease in job performance (cf. Jackson et al., 1986; Maslach et al., 2001; Wright, Cropanzano, 1998).

Maslach et al. (1996) initially stated that job burnout affects only representatives of social services, such as doctors, emergency services, care workers. However, over the years, subsequent empirical studies found that burnout concerns all employees, regardless of the type of job they do (Leiter, Schaufeli, 1996; Maslach et al., 2008; Toppinen-Tanner et al., 2002) as long as they face an imbalance between their job demands and the available resources (Demerouti et al., 2001). Numerous studies indicate that job burnout is experienced also by teachers (e.g. Bauer et al., 2006; Brouwers, Tomic, 2000; Burke, Greenglass, 1995; De Heus, Diekstra, 1999; Fiorilli et al., 2019; Hakanen et al., 2006; Maslach, Leiter, 1999; Sarros, J.C., Sarros, A.M., 1987; Skaalvik, E.M., Skaalvik, S., 2020), who have a demanding and in many cases stressful job. The stress which can lead to teacher burnout is multifaceted and it can come in the form of a lack of administrative support, challenging student behavior, role overload, expectation-reality mismatch, etc. (Brunsting et al., 2014).

3. Teacher job burnout and psychosocial working conditions in school

Research results demonstrate a relationship between occupational burnout and individual psychosocial dimensions of the work environment (Seidler et al., 2014). To measure psychosocial working conditions, various tools are used that examine different dimensions of the phenomenon. These instruments include: the Danish Psychosocial Work Environment Questionnaire (Clausen et al., 2019), the Effort-Reward Imbalance (Siegrist et al., 2004), the General Nordic Questionnaire (Lindstrom, 2002), the Job Characteristics Index (Sims et al., 1976), the Job Content Questionnaire (Karasek et al., 1998), the Psychosocial Working Conditions Questionnaire (Widerszal-Bazyl, Cieślak, 2000), the Questionnaire of Occupational Burdens in Teaching (Pyżalski, Plichta, 2007), the Work Environment Scale (Moos, 1994), the Working Conditions and Control Questionnaire (De Keyser, Hansez, 1996).

Relatively new tools for examining the working environment are the Copenhagen Psychosocial Questionnaire (COPSOQ; Kristensen et al., 2005) and its revised version - COPSOQ II (Pejtersen et al., 2010). Their advantage over the other tools is that they refer to different theoretical models (Baka et al., 2022; Dicke et al., 2018). The COPSOQ and COPSOQ II have been used in the research of numerous professions as well as in the analysis of the relationship between teacher burnout and working conditions in schools, e.g. in countries such as Germany (Drüge et al., 2021; Drüge et al., 2016), Sweden (Boström et al., 2020; Kwak et al., 2019), Australia (Dicke et al., 2018), or Italy (Guidetti et al., 2019). To investigate said correlations, different COPSOQ and COPSOQ II scales were used such as: quantitative

demands, emotional demands, work–privacy conflict, role conflict, influence at work, opportunities for development, social support, sense of community (Drüge et al., 2021; Boström et al., 2020), job satisfaction, general health, cognitive stress (Drüge et al., 2016), meaningfulness of work (Guidetti et al., 2019).

The Polish version of the COPSOQ has scales covering a total of eight dimensions of work environment: ‘Quantitative demands’, ‘Influence at work’, ‘Meaning of work’, ‘Social support’, ‘Job satisfaction’, ‘Possibilities for development’, ‘Quality of leadership’, ‘General health’. It might therefore be worthwhile to have a closer look at selected studies exploring the relationship between teacher burnout and these dimensions (some of them examined using tools other than the COPSOQ and COPSOQ II):

1. Quantitative demands. High professional demands have been linked to teacher burnout (Arvidsson et al., 2019). It was established that in what concerns academic teachers, quantitative demands act as risk factors favoring burnout (Stelmokienė et al., 2019; cf. Mudrak et al., 2018). Let us also note that the theoretical basis for research tackling this relationship often relies on the Job Demands-Resources model (similarly as in the case of e.g. social support) (Baka, 2015; Stelmokienė et al., 2019; cf. Mudrak et al., 2018).
2. Influence at work. A study by Clara et al. (2022) conducted among teachers showed that cognitive demands (including influence at work) negatively predict emotional exhaustion and depersonalization, and positively predict personal accomplishment.
3. Meaning of work. Lavy (2022; cf. Pines, 2002) concluded from her research results that teachers’ sense of meaning at work may decrease their burnout and increase their engagement. Guidetti et al. (2019) showed that teachers’ perceived meaningfulness of work mediates the relationship between mindfulness and both emotional exhaustion and depersonalization. Bracha and Bocos (2015), for their part, found that the Sense of Coherence in Teaching Situations (SOCITS), consisting of three elements - manageability, comprehensibility and meaningfulness - serves as a buffer for occupational burnout - the higher its level, the lower the level of job burnout. The same authors also established that meaningfulness is a source of strength and predicts burnout better than manageability or comprehensibility.
4. Social support. Research has shown a correlation between social support and teacher burnout (Sarros, J.C., Sarros, A.M., 1992; Russell et al., 1987; Burke et al., 1996; Greenglass et al., 1997). Greenglass et al. (1997) found that there is a relationship between coworker support and job burnout, in particular decreased depersonalization and increased feelings of accomplishment. Sarros and Sarros (1992), meanwhile, found that the support received from supervisors is a significant predictor of job burnout.
5. Job satisfaction. Chaplain (1995) argues that, among English teachers, stress and job satisfaction were negatively correlated - high levels of occupational stress were related to low levels of job satisfaction. Skaalvik and Skaalvik (2009) found that teachers' job

satisfaction was directly related to two of the dimensions of burnout: emotional exhaustion and reduced personal accomplishment. A study conducted among physical education teachers in Greece demonstrated that job satisfaction was inversely correlated with burnout (Panagopoulos et al., 2014) and that intrinsic aspects of job satisfaction correlate more strongly to burnout than the extrinsic ones (Koustelios, Tsigilis, 2005).

6. Possibilities for development. Pillay et al. (2005) point to a negative association between the MBI subscale depersonalization and competence. Özer and Beycioglu (2010) found that teachers' attitudes towards professional development are moderately positively related with personal accomplishment and slightly negatively related with depersonalization. Correlations between burnout and competency development in pre-Service Teacher Training have also been studied (Dios et al., 2014).
7. Quality of leadership. Research shows that the quality of relations with school principals influenced the three dimensions of burnout (emotional exhaustion, depersonalization, lack of personal achievement) (Squillaci, 2020). Leithwood et al. (1996) have indicated that leadership had a combined direct and indirect effect on teachers' JB. Numerous researches revealed that transformational leadership has a significant negative predictive effect on teachers' job burnout (cf. Castillo et al., 2017; Tian et al., 2022; Tsang, Teng, 2022) and according to Gong et al. (2013), transformational leadership is negatively related to emotional exhaustion and depersonalization and positively related to personal accomplishment. The research results also showed that the managers' ethical leadership style had a negative relationship with teachers' JB (Eslamieh et al., 2016).
8. General health. It was found, in a sample of school teachers, that many physical and psychological problems (e.g., stomach aches and depression) were related to teacher burnout factors (Seidman, Zager, 1991; cf. Zhong et al., 2009). The studies of Xiao-Ming and Wen-Zeng (2004; cf. Korniseva et al., 2019; Wu, 2020) have shown that teacher JB was correlated with mental health, and a systematic review made by Madigan et al. (2023; cf. Belcastro, 1982) has revealed that teacher JB was consistently associated with somatic complaints (e.g. headaches), illnesses (e.g. gastroenteritis), voice disorders, and biomarkers of hypothalamic-pituitary-adrenal-axis dysregulation (cortisol) and inflammation (cytokines).

According to our best knowledge, the COPSOQ or COPSOQ II have been used in Poland to study the relationships between teacher burnout and only two dimensions of working conditions: quantitative and emotional demands (Charzyńska et al., 2021). The other dimensions have not been tested. The identified research gap was the starting point for this research study whose results are detailed below.

4. Methods

The research process consisted of the following stages: literature analysis, research gap identification, formulation of research questions and hypotheses, selection of the sample and research tools, data collection and analysis, formulation of conclusions, indication of research limitations and directions for future research. The research hypothesis was formulated as follows: H: Teacher burnout is related to psychosocial working conditions in school.

4.1. Characteristics of the research sample

The survey research was conducted in 2023 among 128 Polish teachers¹. A Google form was used which was sent out to schools from the Lubuskie region. Participation in the study was voluntary.

There were more women (75.78%) than men among the surveyed teachers. The average age of study participants was 42 years. The vast majority (96.09%) taught in public schools. Most (46.09%) had more than 20 years of work experience in their current place of employment. There were twice as many teachers who worked in the current school for 4-10 years (19.53%) or 11-20 years (21.09%). Respondents (13.28%) with less than 3 years of work experience were the fewest. Secondary schools (44.53%) and primary schools (42.19%) were represented most numerous, while higher-education institutions (11.72%) were less numerous. Only one participant was reported working in a vocational school and another one in a post-secondary school (1.56% in total). Usually, more than 49 employees (78.91%) were hired in the workplaces of the study participants, while in the remaining ones the number of staff was lower.

4.2. Research tools

Various research tools are used to measure job burnout, e.g. the Maslach Burnout Inventory (MBI) (Maslach, Jackson, 1981; Maslach et al., 1996), the Pines Burnout Measure (Pines et al., 1981), the Utrecht Burnout Questionnaire (Schaufeli et al., 2002), or the Copenhagen Burnout Inventory (Kristensen et al., 2005). In our study we used the Oldenburg Burnout Inventory (OLBI)² – a tool developed by a team of researchers led by Demerouti et al. (2001) to measure job burnout among employees. Specifically, the Polish-language version of the OLBI, developed by Cieślak (as cited in: Baka, Cieślak, 2010), was applied. This questionnaire consists of 16 items, 8 of which concern disengagement (statement numbers: 1, 3, 6, 7, 9, 11, 13, 15) and the other 8 - exhaustion (statement numbers: 2, 4, 5, 8, 10, 12, 14, 16). Respondents give their answers on a four-point scale, where 1 means 'I strongly agree' and 4 means 'I strongly disagree'. This questionnaire consists of 16 items, 8 of which concern disengagement

¹The selection of the sample was non-random. No list of school employees was available for reference.

²The OLBI questionnaire was used, as it can be applied to various professional groups and concerns all employees regardless of the industry or sector that they work in (Baka, Basińska, 2016).

(statement numbers: 1, 3, 6, 7, 9, 11, 13, 15) and the other 8 - exhaustion (statement numbers: 2, 4, 5, 8, 10, 12, 14, 16). Respondents give their answers on a four-point scale, where 1 means 'I strongly agree' and 4 means 'I strongly disagree'. It is important to emphasize that each subscale includes 4 items that are positively framed and 4 items that are negatively framed. Positively framed items should be reverse-coded so that high scores would refer to high levels of exhaustion and disengagement. The subscale score (range 1-4) is the sum of the items' scores divided by their number for the subscales of exhaustion and disengagement. The score is positively and proportionally correlated with the two components of job burnout (Baka, Basińska, 2016).

Psychosocial working conditions were surveyed using the Copenhagen Psychosocial Questionnaire (for more information, see e.g. Baka, Łuczak, Najmiec, 2019)³. It was developed in 2000 by Kristensen and Borg and is available in 25 languages (<https://www.copsoq-network.org/>, 7.05.2022).

Participants were asked to fill out the COPSQ version validated in Poland by Widerszal-Bazyl (2017), who confirmed the reliability of the following eight scales: 'Quantitative demands', 'Influence at work', 'Meaning of work', 'Social support', 'Job satisfaction', 'Possibilities for development' (4-question version; the 2-question version was unreliable), 'Quality of leadership', 'General health'. As in the original tool, the majority of the questions in the questionnaire were answered by participants using a five-point scale (varying from 'to a very little extent' to 'to a very large extent' or 'never/almost never' to 'always/almost always'). The exception was the 'Job satisfaction' scale where the responses were: very satisfied, satisfied, dissatisfied, very dissatisfied, irrelevant / not applicable. The scales of the COPSQ are formed by adding the points of the individual questions of the scales by giving equal weights to each question. These weights are as follows: 100, 75, 50, 25, 0. According to the instruction, respondent who answered less than half of the questions in a scale is regarded as missing ([http://www.mentalhealthpromotion.net/...](http://www.mentalhealthpromotion.net/), 20.05.2022).

4.3. Data analysis

A statistical analysis of the data was performed using the Statistica software. Internal consistency was confirmed using Cronbach's alpha index (Cronbach, 1951). It assumed the following values: 0.855784132 (JB) and 0.818760656 (COPSQ)⁴. Further analyses showed that none of the analyzed variables had a normal distribution. This was confirmed by the results of the Shapiro-Wilk tests (Shapiro, Wilk, 1965)⁵ (Table 1).

³ COPSQ III is currently available in short, medium and long versions (Burr et al., 2018; Llorens, 2019).

⁴ Cronbach's α coefficient of less than 0.6 should not be used (Brzeziński, 2011).

⁵ If the p-value is less than 0.05, we reject the normality hypothesis (Dudley, 2012).

Table 1.
Shapiro -Wilk tests for OLBI and COPSOQ variables

| Variables | p (N = 128 ⁶) |
|-------------------------------|------------------------------|
| JB-Disengagement | .00017 |
| JB-Exhaustion | .00174 |
| Quantitative demands | .00001 |
| Social support | .00000 |
| Influence at work | .00001 |
| Job satisfaction | .00000 |
| Possibilities for development | .00000 |
| Meaning of work | .00001 |
| Quality of leadership | .01164 |
| General health | .00007 |

Source: own study.

As a result, subsequent analyses of variables were carried out using non-parametric statistics (Spearman's rank correlation coefficient).

5. Results

Teachers were asked to assess the level of their job burnout. It was found that the average score for the disengagement subscale was slightly lower (2.39) than for the exhaustion subscale (2.61). Both values indicate a moderate level of job burnout in the analyzed dimensions⁷.

Participants also assessed the psychosocial working conditions in their schools. Average ratings are shown in Table 2 (where items in individual subscales could be assigned 100, 75, 50, 25 or 0 points). A data analysis found that the highest average ratings were recorded for the subscales: 'Job satisfaction', 'Social support', 'Possibilities for development' and 'Meaning of work', while the lowest - for the subscales: 'Quality of leadership' and 'General health'.

Table 2.
Teacher assessment of psychosocial working conditions

| Psychosocial working conditions | Averages (N=128 ⁸) |
|---------------------------------|--------------------------------|
| Job satisfaction | 75.54 |
| Social support | 68.46 |
| Possibilities for development | 67.92 |
| Meaning of work | 67.38 |

⁶ With the exception of the subscale 'Quality of leadership', where N=127, one respondent did not have a direct supervisor.

⁷ In order to facilitate the interpretation of results, Baka and Basińska (2016) developed stanine standards. Exhaustion scores below 1.90 indicate a low level of exhaustion, 1.91–2.74 – a moderate level, and higher than 2.75 – a high level. Disengagement scores below 1.88 indicate a low level, 1.89–2.71 – a moderate level, and higher than 2.72 – a high level.

⁸ Calculations were made for N=128, except for the 'Quality of Leadership' scale (where N=127). This difference results from the fact that 1 respondent (in a managerial position) did not have a direct supervisor.

| | |
|-----------------------|-------|
| Influence at work | 65.95 |
| Quantitative demands | 62.32 |
| Quality of leadership | 56.50 |
| General health | 48.96 |

Source: own study

To verify the research hypothesis describing the relationship between job burnout (in two dimensions: disengagement and exhaustion) and psychosocial working conditions, a correlation analysis was carried out using Spearman's rho coefficient. The obtained results were interpreted as per the Dancey and Reidy (2004) classification⁹.

The analysis of relationships between job burnout-disengagement (JB-D) and psychosocial working conditions found a strong negative correlation with three subscales: 'Meaning of work', 'Possibilities for development', 'Quality of leadership'. A moderate negative correlation was reported for the 'Job satisfaction' and 'Social support' subscales. A strong positive correlation was also reported for 'Quantitative demands' (Table 3).

Table 3.

Spearman's rho coefficient values for variables: job burnout (disengagement) and psychosocial working conditions

| Job burnout (disengagement) and: | Spearman's rho (N=128)¹⁰ |
|---|--|
| Meaning of work | -0.635520 |
| Possibilities for development | -0.547973 |
| Quality of leadership | -0.427396 |
| Job satisfaction | -0.395630 |
| Social support | -0.336720 |
| Influence at work | -0.182479 |
| Quantitative demands | 0.404314 |
| General health | 0.024387 |

* p<0,05

Source: own study

Examining the relationship of job burnout-exhaustion (JB-E) with individual aspects of psychosocial working conditions, it was found that most of them were negative (with the exception of 'Quantitative demands'). The two identified correlations were strong. As with the JB-D variable, 'Meaning of work' and 'Possibilities for development' were significant while 'Quality of leadership', 'Influence at work' and 'Social support' were less pronounced (a moderate correlation with JB-E was found). A strong positive correlation was observed between JB-E and 'Quantitative demands'(Table 4).

Table 4.

Spearman's rho coefficient values for variables: job burnout (exhaustion) and psychosocial working conditions

⁹ Interpretation of Spearman's coefficient rho : ≥ 0.70 (very strong relationship), 0.40-0.69 (strong relationship), 0.30-0.39 (moderate relationship), 0.20-0.29 (weak relationship), 0.01-0.19 (no or negligible relationship) (Dancey, Reidy, 2004).

¹⁰ With the exception of the subscale 'Quality of leadership', where N=127.

| Job burnout (exhaustion) and: | Spearman's rho (N=128) ¹¹ |
|----------------------------------|--------------------------------------|
| 1. Meaning of work | -0,503291 |
| 2. Possibilities for development | -0,485076 |
| 3. Quality of leadership | -0,284483 |
| 4. Influence at work | -0,252825 |
| 5. Social support | -0,208154 |
| 6. General health | -0,126776 |
| 7. Job satisfaction | -0,117506 |
| 8. Quantitative demands | 0,467075 |

* p<0,05

Source: own study

Accordingly, the basis for partial confirmation of the hypothesis was found. This applies to both dimensions of job burnout and most aspects of psychosocial working conditions. It is worth emphasizing that, both for disengagement and exhaustion, strong positive correlations with the variable 'Quantitative demands' were found.

6. Discussion and conclusions

The research reveals a moderate level of job burnout among teachers, both in terms of disengagement and exhaustion. Out of eight analyzed aspects of psychosocial working conditions, 'Job satisfaction', 'Social support', 'Possibilities for development' and 'Meaning of work' were rated the highest, while 'Quality of leadership' and 'General health' were rated the lowest.

Teacher job burnout in the area of depersonalization correlated with a slightly larger number of aspects of psychosocial working conditions than in the case of exhaustion. In the case of both these dimensions, 'General health' remained insignificant to JB (the correlations were negligible). It can therefore be concluded that, contrary to some of the previous findings - that many physical and psychological problems (e.g., stomach aches and depression) were related to teacher burnout factors (Seidman, Zager, 1991; cf. Zhong et al., 2009) – 'General health' is not a significant predictor of teacher burnout. Let us also note that in the case of JB- Exhaustion 'Job satisfaction' was reported to be of little importance as well. This differs slightly from the results of Skaalvik and Skaalvik (2009; cf. Panagopoulos et al., 2014) who found that teachers' job satisfaction was directly related to emotional exhaustion.

The strongest negative correlation between job burnout (in both dimensions) and individual aspects of the work environment were identified for the following variables: 'Meaning of work' (cf. Lavy, 2022; Bracha, Bocos, 2015) and 'Possibilities for development' (cf. Pillay et al., 2005). The research results therefore show that in the case of Polish educators both dimensions

¹¹ As above.

constitute a significant buffer against occupational burnout. They are strongly associated with the mission undertones of the teaching profession which may be of significance in Poland where the educational system is often criticized for its inability to foster good social and organizational working conditions. The actions of those responsible for school management and teachers' work should take this assumption into account.

A slightly smaller (but still strong) negative correlation was also found for JB-D and 'Quality of leadership'. In the case of JB-E, this relationship was weaker. Let us recall that the impact of leadership on the severity of teacher job burnout was also hinted at among others by Squillaci (2020), Leithwood et al. (1996) or Castillo et al. (2017). Not only that, the relationship between the variable 'Influence at work' and JB-E is of moderate strength and correlates weakly with JB-D, a finding that was somewhat different from that obtained by Clarà et al. (2022).

A strong positive correlation was also established between JB (also in both dimensions) and 'Quantitative demands'. In so doing, the findings of other researchers were confirmed (Arvidsson et al., 2019; Stelmokienė et al., 2019; Mudrak et al., 2018).

The results of this study can help us to develop a more sustainable work environment in schools. A more sustainable work environment might encourage teachers to be more effective in their profession.

Finally, let us point out the limitations of the conducted research study. These were of quantitative rather than qualitative nature and resulted from teachers' self-reporting. The selection of the sample was non-random, which means the findings cannot be generalized. The study was also not longitudinal and the data was lagging, which does not permit strong causal inferences. Furthermore, the use of the survey method might lead to common method bias.

A better understanding of the analyzed problem would require more in-depth qualitative research, using techniques based on face-to-face contact, interviews, observations, case studies, etc. Conducting a longitudinal study is also worth considering.

References

1. Ahola, K., Väänänen, A., Koskinen, A., Kouvonen, A., Shirom, A. (2010). Burnout as a predictor of all-cause mortality among industrial employees: A 10-year prospective register-linkage study. *Journal of Psychosomatic Research*, No. 69, pp. 51-57, doi: 10.1016/j.jpsychores.2010.01.002.
2. Aronsson, G., Theorell, T., Grape, T., Hammarström, A., Hogstedt, Ch., Marteinsdottir, I., Skoog, I., Träskman-Bendz, L., Hall, Ch. (2017). A systematic review including meta-

- analysis of work environment and burnout symptoms. *BMC Public Health*, Vol. 17, p. 264, doi: 10.1186/s12889-017-4153-7.
3. Arvidsson, I., Leo, U., Larsson, A., Håkansson, C., Persson, R., Björk, J. (2019). Burnout among school teachers: quantitative and qualitative results from a follow-up study in southern Sweden. *BMC Public Health*, Vol. 19, pp. 1-13, doi: 10.1186/s12889-019-6972-1.
 4. Baka, Ł. (2015). Does job burnout mediate negative effects of job demands on mental and physical health in a group of teachers? Testing the energetic process of Job Demands-Resources model. *International Journal of Occupational Medicine and Environmental Health*, Vol. 28(2), pp. 335-346, doi: 10.13075/ijomeh.1896.00246.
 5. Baka, Ł. (2019). *Kopenhaski Kwestionariusz Psychospołeczny (COPSOQ II). Podręcznik do polskiej wersji narzędzia*. Warsaw: CIOP-PIB.
 6. Baka, Ł., Basińska, B.A. (2016). Psychometryczne właściwości polskiej wersji oldenburskiego kwestionariusza wypalenia zawodowego (OLBI). *Medycyna Pracy*, No. 67, pp. 29-41, doi: 10.13075/mp.5893.00353.
 7. Baka, Ł., Cieślak, R. (2010). Self-efficacy and social support and the effects of job stressors on job burnout and work engagement in teachers. *Studia Psychologica*, No. 48, pp. 5-19.
 8. Baka, Ł., Łuczak, A., Najmiec, A. (2019). *Kopenhaski Kwestionariusz Psychospołeczny jako narzędzie do oceny psychospołecznych warunków pracy*. Warsaw: CIOP-PIB. Retrieved from <https://www.ciop.pl/CIOPPortalWAR/file/88807/2019112034210&Materialy-informacyjne-I-N-01A-L-Baka.pdf>, 05.07.2022.
 9. Baka, Ł., Prusik, M., Pejtersen, J.H., Grala, K. (2022). Full evaluation of the psychometric properties of COPSOQ II. One-year longitudinal study on Polish human service staff. *PLoS ONE*, Vol. 17(1): e0262266, pp. 1-19, doi: 10.1371/journal.pone.0262266.
 10. Bakker A.B., Demerouti E., Sanz-Vergel A.I. (2014). Burnout and work engagement: The JD-R approach. *Annual Review of Organizational Psychology and Organizational Behavior*, Vol. 1, pp. 389-411, doi: 10.1146/annurev-orgpsych-031413-091235.
 11. Bakker, A. B., Costa, P. L. (2014). Chronic job burnout and daily functioning: A theoretical analysis. *Burnout Research*, Vol. 1, Iss. 3, pp. 112-119, doi: 10.1016/j.burn.2014.04.003.
 12. Bauer, J., Stamm, A., Virnich, K., Wissing, K., Muller, U., Wirsching, M., Schaarschmidt, U. (2006). Correlation between burnout syndrome and psychological and psychosomatic symptoms among teachers. *International Archives of Occupational and Environmental Health*, Vol. 79, pp. 199–204, doi: 10.1007/s00420-005-0050-y.
 13. Belcastro, P. A. (1982). Burnout and its relationship to teachers' somatic complaints and illnesses. *Psychological Reports*, Vol. 50(3, Pt 2), pp. 1045–1046, doi: 10.2466/pr0.1982.50.3c.1045.
 14. Boström, M., Björklund, Ch., Bergström, G., Nybergh, L., Schäfer Elinder, L., Stigmar, K., Wåhlin, Ch., Jensen, I., Kwak, L. (2020). Health and work environment among female and male swedish elementary school teachers - a cross-sectional study. *International*

- Journal of Environmental Research and Public Health*, Vol. 17(1), p. 227, doi: 10.3390/ijerph17010227.
15. Bracha, E., Bocos, M. (2015). A sense of coherence in teaching situations as a predictor of first year teaching interns' burnout, *Procedia - Social and Behavioral Sciences*, 209, pp. 180 – 187, doi: 10.1016/j.sbspro.2015.11.276.
 16. Brouwers, A., Tomic, W. (2000). A longitudinal study of teacher burnout and perceived self-efficacy in classroom management. *Teaching and Teacher Education*, Vol. 16, pp. 239-253, doi: 10.1016/S0742-051X(99)00057-8.
 17. Brunsting, N. C., Sreckovic, M. A., Lane, K. L. (2014). Special education teacher burnout: A synthesis of research from 1979 to 2013. *Education and Treatment of Children*, Vol. 37 (4), pp. 681-712, doi: 10.1353/etc.2014.0032.
 18. Brzeziński, J. (1999, 2011). *Metodologia badań psychologicznych*. Warszawa: PWN.
 19. Burke, R. J., Greenglass, E. (1995). A longitudinal study of psychological burnout in teachers. *Human Relations*, Vol. 48(2), pp. 187–202, doi: 10.1177/001872679504800205.
 20. Burke, R.J., Greenglass, E.R., Schwarzer., R. (1996). Predicting teacher burnout over time: Effects of work stress, social support, and self-doubts on burnout and its consequences. *Anxiety, Stress, & Coping. An International Journal*, Vol. 9(3), pp. 261-275, doi: 10.1080/10615809608249406.
 21. Burr, H., Berthelsen, H., Lluís, S., Nübling, M., Dupret, E., Demiral, Y., Oudyk, J., Kristensen, T., Llorens, S. C., Navarro, A., Lincke, H.-J., Bocéréan, Ch., Sahan, C., Smith, P. & Pohrt, A. (2018). The third version of the Copenhagen Psychosocial Questionnaire. Retrieved from: <https://www.copsoq-network.org/assets/Uploads/The-Third-Version-of-the-Copenhagen-Psychosocial-Questionnaire.pdf> (04.07.2022).
 22. Castillo, I., Álvarez, O., Esteva, I., Queralt, A., & Molina-García, J. (2017). Passion for teaching, transformational leadership and burnout among physical education teachers. *Revista de Psicología del Deporte*, Vol. 26(3), pp. 57-61.
 23. Chaplain, R.P. (1995). Stress and job satisfaction: a study of English primary school teachers. *Educational Psychology: An International Journal of Experimental Educational Psychology*, Vol. 15 (4), pp. 473-489, doi: 10.1080/0144341950150409.
 24. Charzyńska, E., Polewczyk, I., Gózdź, J., Kitlińska-Król, M., Sitko-Dominik, M. (2021). The buffering effect of spirituality at work on the mediated relationship between job demands and turnover intention among teachers. *Religions*, Vol. 12(9), p. 781, doi: 10.3390/rel12090781.
 25. Clarà, M., Ramos, F. S., Marchán, P., Donoso, D., Chávez, J., Cavalcante, S., Barril, J. P., Padula, B., López, T., Justiniano, B., Silva, P., Coiduras J., Vallés, A., Uribe, C. P. (2022). Unpacking the role of work demands in teacher burnout: cognitive effort as a protective factor. *Electronic Journal of Research in Educational Psychology*, Vol. 20, No. 57, pp. 245-266, doi: 10.25115/ejrep.v20i57.4374.

26. Clausen, T., Madsen, I. E., Christensen, K. B., Bjorner, J. B., Poulsen, O. M., Maltesen, T., Borg, V., Rugulies, R. (2019). The Danish Psychosocial Work Environment Questionnaire (DPQ): Development, content, reliability and validity. *Scandinavian Journal of Work, Environment & Health*, Vol. 45(4), pp. 356–369, <https://www.jstor.org/stable/26746262>.
27. Cordes, C.L., Dougherty, T.W. (1993). A Review and an integration of research on job burnout. *Academy of Management Review*, Vol. 18, pp. 621-656, doi: 10.5465/AMR.1993.9402210153.
28. Cronbach, L. J. (1951). Coefficient alpha and the interval structure of tests. *Psychometrika*, No. 16, pp. 297–334.
29. Dancey, C., Reidy, J. (2004). *Statistics without maths for psychology: using SPSS for Windows*. London: Prentice-Hall.
30. De Heus, P., Diekstra, R. F. (1999). Do teachers burn out more easily? A comparison of teachers with other social professions on work stress and burnout symptoms. In: R. Vandenberghe, A. M. Huberman (Eds.), *Understanding and preventing teacher burnout: a sourcebook of international research and practice* (pp. 269-284). New York: Cambridge University Press.
31. De Keyser, V., Hansez, I. (1996). Vers une perspective transactionnelle du stress au travail: pistes d'évaluations méthodologiques. *Cahiers de Médecine du Travail*, Vol. 33, No. 3, pp. 133-144.
32. Demerouti, E., Bakker, A.B., Nachreiner, F., Schaufeli, W.B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, Vol. 86, pp. 499-512, doi: 10.1037/0021-9010.86.3.499.
33. Dicke, T., Marsh, H. W., Riley, P., Parker, P. D., Guo, J., Horwood, M. (2018). Validating the Copenhagen Psychosocial Questionnaire (COPSOQ-II) using set-ESEM: Identifying psychosocial risk factors in a sample of school principals. *Frontiers in Psychology*, Vol. 9, p. 584, doi: 10.3389/fpsyg.2018.00584.
34. Dios, I., Calmaestra, J., Rodríguez-Hidalgo, A. J. (2014). Burnout and competency development in pre-service teacher training. *Electronic Journal of Research in Educational Psychology*, Vol. 12(3), pp. 649-670.
35. Drüge, M., Schladitz, S., Wirtz, M.A., Schleider, K. (2021). Psychosocial burden and strains of pedagogues - using the job demands-resources theory to predict burnout, job satisfaction, general state of health, and life satisfaction. *International Journal of Environmental Research and Public Health*, Vol. 18(15), p. 7921, doi: 10.3390/ijerph18157921.
36. Drüge, M., Schleider, K., Rosati, A-S. (2016). Bullying and Harassment of Trainee Teachers. *Procedia-Social and Behavioral*, Vol. 228, pp. 118-122, doi: 10.1016/j.sbspro.2016.07.018.
37. Dudley, R. (2012). *The Shapiro–Wilk test for normality*. Retrieved from: <https://math.mit.edu/~rmd/46512/shapiro.pdf>, 04.01.2023.

38. Edú-Valsania, S, Laguía, A, Moriano, J.A. (2022). Burnout: a review of theory and measurement. *International Journal of Environmental Research and Public Health*. Vol. 19(3), p. 1780, doi: 10.3390/ijerph19031780.
39. Eslamieh, F., Mohammad Davoudi, A. H. (2016). An analysis of the relationship between managers' ethical leadership style with teachers' organizational commitment and job burnout. *International Journal of Organizational Leadership*, Vol. 5, pp. 380-392, doi: 10.33844/IJOL.2016.60398.
40. Fiorilli, C., Benevene, P., De Stasio, S., Buonomo, I., Romano, L., Pepe, A., Addimando, L. (2019). Teachers' burnout: The role of trait emotional intelligence and social support. *Frontiers in Psychology*, Vol. 10, p. 2743, doi: 10.3389/fpsyg.2019.02743.
41. Freudenberger, H.J. (1974). Staff burn-out, *Journal of Social Issues. A Journal of the Society for the Psychological Study of Social Issues*, Vol. 30, pp. 1159-165. doi:10.1111/j.1540-4560.1974.tb00706.x.
42. Ginsburg, S. G. (1974). The problem of the burned-out executive. *Personnel Journal*, Vol. 48, pp. 598-600.
43. Gong, T., Zimmerli, L., Hoffer, H. E. (2013). The effects of transformational leadership and the sense of calling on job burnout among special education teachers. *Journal of School Leadership*, Vol. 23(6), pp. 969–993, doi: 10.1177/105268461302300603.
44. Greenglass, E.R., Burke, R.J., Konarski, R. (1997). The impact of social support on the development of burnout in teachers: Examination of a model. *Work & Stress. An International Journal of Work, Health & Organisations*, Vol. 11(3), pp. 267-278, doi: 10.1080/02678379708256840.
45. Guidetti, G., Viotti, S., Badagliacca, R., Colombo, L., Converso, D. (2019). Can mindfulness mitigate the energy-depleting process and increase job resources to prevent burnout? A study on the mindfulness trait in the school context. *PLoS ONE*, Vol. 14(4), e0214935, doi: 10.1371/journal.pone.0214935.
46. Hakanen, J.J., Bakker, A.B., Schaufeli, W.B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology*, Vol. 43(6), pp. 495-513, doi: 10.1016/j.jsp.2005.11.001.
47. http://www.mentalhealthpromotion.net/resources/english_copsoq_2_ed_2003-pdf.pdf, 20.05.2022.
48. <https://www.copsoq-network.org/>, 05.07.2022.
49. Jackson, S. E., Schwab, R. L., Schuler, R. S. (1986). Toward an understanding of the burnout phenomenon. *Journal of Applied Psychology*, Vol. 71(4), pp. 630-640, doi: 10.1037/0021-9010.71.4.630.
50. Kahn, R. (1978). Job burnout: Prevention and remedies. *Public Welfare*, Vol. 36(2), pp. 61-63.
51. Karasek, R., Brisson, C., Kawakami, N., Houtman, I., Bongers, P., Amick, B. (1998). The Job Content Questionnaire (JCQ): an instrument for internationally comparative

- assessments of psychosocial job characteristics. *Journal of Occupational Health Psychology*, Vol. 3(4), pp. 322-55, doi: 10.1037//1076-8998.3.4.322. PMID: 9805280.
52. Korniseva, A., Guseva, S., Dombrovskis, V., Capulis, S. (2019). Professional burnout level and mental health of teachers in Latvia. In: S. Ivanova, I. Elkina (Eds.), *Cognitive - Social, and Behavioural Sciences - icCSBs 2019*, Vol. 74. European Proceedings of Social and Behavioural Sciences (pp. 337-345). Future Academy, doi: 10.15405/epsbs.2019.12.02.40.
53. Koustelios, A., Tsigilis, N. (2005). The relationship between burnout and job satisfaction among physical education teachers: a multivariate approach. *European Physical Education Review*, Vol. 11(2), pp. 189–203, doi: 10.1177/1356336X05052896.
54. Kretschmann, R. (2011). *Stres w zawodzie nauczyciela*. Gdańsk: Gdańskie Wydawnictwo Psychologiczne.
55. Kristensen, T.S., Hannerz, H., Høgh, A., Borg, V. (2005). The Copenhagen Psychosocial Questionnaire – A tool for the assessment and improvement of the psychosocial work environment. *Scandinavian Journal of Work, Environment & Health*, Vol. 31(6), pp. 438–449, doi: 10.5271/sjweh.948.
56. Kwak, L., Lornudd, C., Björklund, C., Bergström, G., Nybergh, L., Elinder, L. S., Stigmar, K., Wählin, C., Jensen, I. (2019). Implementation of the Swedish Guideline for Prevention of Mental ill-health at the Workplace: study protocol of a cluster randomized controlled trial, using multifaceted implementation strategies in schools. *BMC Public Health*, Vol. 19(1), pp. 1-19, doi: 10.1186/s12889-019-7976-6.
57. Lavy, S. (2022). A meaningful boost: effects of teachers' sense of meaning at work on their engagement, burnout, and stress. *AERA Open*, Vol. 8(1), pp. 1–14, doi: 10.1177/23328584221079857.
58. Leiter, M., Schaufeli, W.B. (1996). Consistency of the burnout construct across occupations. *Anxiety, Stress, and Coping*, Vol. 9, No. 3, pp. 229-243, doi: 10.1080/10615809608249404.
59. Leithwood, K., Menzies, T., Jantzi, D., Leithwood, J. (1996). School restructuring, transformational leadership and the amelioration of teacher burnout. *Anxiety, Stress, & Coping*, Vol. 9, No. 3, pp. 199-215, doi: 10.1080/10615809608249402.
60. Lindstrom, K. (2002). Nordic method for measuring psychosocial and social factors at work. *TUTB Newsletter*, 19-20, pp. 48-49.
61. Lizano, E. L. (2015). Examining the impact of job burnout on the health and well-being of human service workers: a systematic review and synthesis. *Human Service Organizations: Management, Leadership & Governance*, Vol. 39(3), pp. 167-181, doi: 10.1080/23303131.2015.1014122.
62. Llorens, S. C., Pérez-Franco, J., Oudyk, J., Berthelsen, H., Dupret, E., Nübling, M., Burr, H., Moncada, S. (2019). COPSOQ III. Guidelines and questionnaire. Retrieved from: [https://www.copsoqnetwork.org/guidelines and questionnaire/](https://www.copsoqnetwork.org/guidelines%20and%20questionnaire/), 13.11.2019.

63. Madigan, D. J., Kim, L. E., Glandorf, H. L., Kavanagh, O. (2023). Teacher burnout and physical health: A systematic review. *International Journal of Educational Research, Vol. 119*, 102173, doi: 10.1016/j.ijer.2023.102173.
64. Maslach, C., Jackson, S.E. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior, Vol. 2, No. 2*, pp. 99-113, doi: 10.1002/job.4030020205.
65. Maslach, C., Jackson, S.E., Leiter, M. (1996). *Maslach Burnout Inventory*, 3rd ed. Palo Alto: Consulting Psychologists Press.
66. Maslach, C., Leiter, M. P. (1999). Teacher burnout: A research agenda. In: R. Vandenberghe, A. M. Huberman (Eds.), *Understanding and preventing teacher burnout: A sourcebook of international research and practice* (pp. 295–303). Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, Sao Paulo: Cambridge University Press.
67. Maslach, C., Leiter, M. P. (2005). Stress and burnout: The critical research. In: C.L. Cooper (Ed.), *Handbook of Stress Medicine and Health* (pp. 155-172). Lancaster: CRC Press.
68. Maslach, C., Leiter, M., Schaufeli, W.B. (2008). Measuring burnout, In: C.L. Cooper, S. Cartwright (Eds.). *The Oxford handbook of organizational well-being* (pp. 86-108). Oxford: Oxford University Press.
69. Maslach, C., Schaufeli, W. B., Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology, Vol. 52(1)*, pp. 397-422, doi: 10.1146/annurev.psych.52.1.397.
70. Maslach, C., Schaufeli, W.B., Leiter, M.P. (2001). Job burnout. *Annual Review of Psychology, Vol. 52(1)*, pp. 397–422. doi:10.1146/annurev.psych.52.1.397.
71. Moos, R. (1994), *The work environment scale manual*. 3rd ed. Palo Alto: Consulting Psychologists Press.
72. Mudrak, J., Zabrodska, K., Kveton, P., Jelinek, M., Blatny, M., Solcova, I., Machovcova, K. (2018). Occupational well-being among university faculty: A job demands-resources model. *Research in Higher Education, Vol. 59*, pp. 325-348, doi: org/10.1007/s11162-017-9467-x.
73. Özer, N., Beycioglu, K. (2010). The relationship between teacher professional development and burnout. *Procedia-Social and Behavioral Sciences, Vol. 2(2)*, pp. 4928-4932, doi: 10.1016/j.sbspro.2010.03.797.
74. Panagopoulos, N., Anastasiou, S., Goloni, V. (2014). Professional burnout and job satisfaction among physical education teachers in Greece. *Journal of Scientific Research & Reports, Vol. 3(13)*, pp. 1710-1721, doi: 10.9734/JSRR/2014/8981.
75. Pejtersen, J. H., Kristensen, T. S., Borg, V., Bjorner, J. B. (2010). The second version of the Copenhagen Psychosocial Questionnaire. *Scandinavian Journal of Public Health, Vol. 38(3_suppl)*, pp. 8-24, doi: 10.1177/1403494809349858.
76. Peterson, U., Demerouti, E., Bergström, G., Samuelsson, M., Asberg, M., Nygren, A. (2008). Burnout and physical and mental health among Swedish healthcare workers. *Journal of Advanced Nursing, Vol. 62*, pp. 84-95, doi: 10.1111/j. 1365-2648.2007.04580.x.

77. Pillay, H., Goddard, R., Wilss, L. (2005). Well-being, burnout and competence: implications for teachers. *Australian Journal of Teacher Education*, Vol. 30(2), pp. 21-31, doi: 10.14221/ajte.2005v30n2.3.
78. Pines, A. M. (2002). Teacher burnout: A psychodynamic existential perspective. *Teachers and Teaching: Theory and Practice*, Vol. 8(2), pp. 121–140, doi: 10.1080/13540600220127331.
79. Pines, A., Aronson, E. (1983). Combatting burnout. *Children and Youth Services Review*, Vol. 5, Iss. 3, pp. 263-275.
80. Pines, A.M., Aronson, E., Kafry, D. (1981). *Burnout: From tedium to personal growth*. New York: Free Press.
81. Pyżalski, J., Merecz, D. (Eds.) (2010). *Psychospołeczne warunki pracy polskich nauczycieli. Pomiędzy wypaleniem zawodowym a zaangażowaniem*. Kraków: Impuls.
82. Pyżalski, J., Plichta, P. (2007). *Kwestionariusz Obciążeń Zawodowych Pedagoga (KOZP). Podręcznik*. Łódź: Wyd. UŁ.
83. Russell, D. W., Altmaier, E., Van Velzen, D. (1987). Job-related stress, social support, and burnout among classroom teachers. *Journal of Applied Psychology*, Vol. 72(2), pp. 269–274, doi: 10.1037/0021-9010.72.2.269.
84. Salvagioni, D.A.J., Melanda, F.N., Mesas, A.E., Gonzalez, A.D., Gabani, F.L., Andrade, S.M. (2017). Physical, psychological and occupational consequences of job burnout: A systematic review of prospective studies. *PLoS ONE*, Vol. 12(10): e0185781, pp. 1-29, doi: 10.1371/journal.pone.0185781.
85. Sarros, J.C., Sarros, A.M. (1987). Predictors of teacher burnout. *Journal of Educational Administration*, Vol. 25 No. 2, pp. 216-230, doi: 10.1108/eb009933.
86. Sarros, J.C., Sarros, A.M. (1992). Social support and teacher burnout. *Journal of Educational Administration*, Vol. 30, No. 1, doi: 10.1108/09578239210008826.
87. Schaufeli, W.B., Salanova, M., González-Romá, V., Bakker, A.B. (2002). The measurement of engagement and burnout: A two sample confirmatory factor analytic approach. *Journal of Happiness Studies*. Vol. 3(1), pp. 71–92, doi: 10.1023/A:1015630930326.
88. Seidler, A., Thinschmidt, M., Deckert, S., Then, F., Hegewald, J., Nieuwenhuijsen, K., Riedel-Heller, S. G. (2014). The role of psychosocial working conditions on burnout and its core component emotional exhaustion—a systematic review. *Journal of Occupational Medicine and Toxicology*, Vol. 9(1), pp. 1-13. doi: 10.1186/1745-6673-9-10.
89. Seidman, S. A., Zager, J. (1991). A study of coping behaviours and teacher burnout. *Work & Stress*, Vol. 5(3), pp. 205-216, doi: 10.1080/02678379108257019.
90. Shapiro, S.S., Wilk, M.B. (1965). An analysis of variance test for normality (complete samples). *Biometrika*, No. 52, pp. 591–611.
91. Shoman, Y., El May, E., Marca, S.C., Wild, P., Bianchi, R., Bugge, M.D., Caglayan, C., Cheptea, D., Gnesi, M., Godderis, L. et al. (2021). Predictors of Occupational Burnout: A

- Systematic Review. *Journal of Environmental Research and Public Health*, Vol. 18, p. 9188, doi: 10.3390/ijerph18179188.
92. Siegrist, J., Starke, D., Chandola, T., Godin, I., Marmot, M., Niedhammer, I., Peter, R. (2004). The measurement of effort-reward imbalance at work: European comparisons. *Social Science & Medicine*, Vol. 58, pp. 1483-1499, doi: 10.1016/S0277-9536(03)00351-4.
93. Sims, H., Szilagy, A., Keller, R. (1976). The measurement of job characteristics. *Academy Management Journal*, Vol. 19, No. 2, pp. 195-212, doi: 10.2307/255772.
94. Skaalvik, E. M., Skaalvik, S. (2020). Teacher burnout: relations between dimensions of burnout, perceived school context, job satisfaction and motivation for teaching. A longitudinal study. *Teachers and Teaching*, Vol. 26(7-8), pp. 602-616, doi: 10.1080/13540602.2021.1913404.
95. Skaalvik, E.M., Skaalvik, S. (2009). Does school context matter? Relations with teacher burnout and job satisfaction. *Teaching and Teacher Education*, Vol. 25(3), pp. 518-524, doi: 10.1016/j.tate.2008.12.006.
96. Squillaci, M. (2020). Does leadership matter in burnout of special education teachers? 4th International Technology, Education and Development Conference, 2nd-4th March 2020, Valencia, Spain, pp. 2022-2028, doi: 10.21125/inted.2020.0631.
97. Stelmokienė, A., Genevičiūtė-Janonė, G., Gustainienė, L., Kovalčikienė, K. (2019). Job demands-resources and personal resources as risk and safety factors for the professional burnout among university teachers. *Pedagogika*, Vol. 134(2), pp. 25-44, doi: 10.15823/p.2019.134.2.
98. Tavella, G., Hadzi-Pavlovic, D., Parker, G. (2021). Burnout: redefining its key symptoms. *Psychiatry Research*, Vol. 302, doi: 10.1016/j.psychres.2021.114023.
99. Tian, J., Zhang, W., Mao, Y., Gurr, D. (2022). The impact of transformational leadership on teachers' job burnout: the mediating role of social-emotional competence and student-teacher relationship. *Journal of Educational Administration*, Vol. 60 No. 4, pp. 369-385, doi: 10.1108/JEA-04-2021-0075.
100. Toppinen-Tanner, S., Kalimo, R., Mutanen, P. (2002). The process of burnout in white-collar and blue-collar jobs: eight-year prospective study of burnout. *Journal of Organizational Behavior*, Vol. 23, Iss. 5, pp. 555-570, doi: 10.1002/job.155.
101. Tsang, K. K., Du, Y., Teng, Y. (2022). Transformational leadership, teacher burnout, and psychological empowerment: A mediation analysis. *Social Behavior and Personality: an International Journal*, Vol. 50(1), pp. 1-11, doi: 10.2224/sbp.11041.
102. Widerszal-Bazyl, M. (2017). Kopenhaski Kwestionariusz Psychospołeczny (COPSOQ) – właściwości psychometryczne wybranych skal w polskiej wersji. *Medycyna Pracy*, No. 68(3), pp. 329-348, doi: 10.13075/mp.5893.00443.
103. Widerszal-Bazyl, M., Cieślak, M. (2000). Monitoring Psychosocial Stress at Work: Development of the Psychosocial Working Conditions Questionnaire. *International*

- Journal of Occupational Safety and Ergonomics*, Vol. 6, sup1., pp. 59-70, doi: 10.1080/10803548.2000.11105108.
104. Wright, T. A., Cropanzano, R. (1998). Emotional exhaustion as a predictor of job performance and voluntary turnover. *Journal of Applied Psychology*, Vol. 83(3), pp. 486-493, doi: 10.1037/0021-9010.83.3.486.
105. Wu, D. (2020). Relationship between job burnout and mental health of teachers under work stress. *Revista Argentina de Clínica Psicológica*, Vol. 29(1), pp. 310-315, doi: 10.24205/03276716.2020.41.
106. Xiao-Ming, L., Wen-Zeng, W. (2004). a study on teachers' occupational burnout and mental health. *Chinese Journal of Clinical Psychology*, Vol. 12(4), pp. 357–358.
107. Zhong, J., You, J., Gan, Y., Zhang, Y., Lu, C., Wang, H. (2009). Job stress, burnout, depression symptoms, and physical health among Chinese university teachers. *Psychological Reports*, No. 105 (3_suppl), pp. 1248–1254, doi: 10.2466/PR0.105.F.1248-1254.