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The level, antecedents and consequences of occupational burnout among academic teachers from state universities of economics in Poland

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Abstract

Aim: The purpose of the study was to diagnose the level of occupational burnout of academic teachers from state universities of economics in Poland, and to identify its antecedents and consequences. The hypotheses are as follows: H1: The level of occupational burnout of academic teachers from state universities of economics is high; H2: The higher the effort-reward imbalance, the higher the level of occupational burnout; H3: The higher the work-family conflict, the higher the level of occupational burnout; H4: The higher the family-work conflict, the higher the level of occupational burnout; H5: The higher the intensity of stress-inducing student behaviour, the higher the level of occupational burnout; H6: The higher the level of occupational burnout, the higher the turnover intention; H7: The measured occupational burnout is a consequence of effort-reward imbalance, stress-inducing customer behaviour, work-family conflict and family-work conflict; H8: Turnover intention is a consequence of occupational burnout; H9: Turnover intention is a consequence of effort-reward imbalance, stress-inducing customer behaviour, work-family conflict and family-work conflict.

Methodology: The study applied a variety of psychometric tools, including Burnout Assessment Tool (BAT), Effort-Reward Imbalance (ERI) questionnaire, Carlson Scale (measuring Work-Family Conflict (WFC) and Family-Work Conflict (FWC)), Stress-Inducing Customer Behaviour Scale (SCBS) and Turnover Intention Scale 6 (TIS-6).

Results: In the surveyed group of academic teachers from state universities of economics in Poland, one in five was at a very high risk of burnout, and one in five was qualified to be considered as being at risk of burnout. Their burnout is related to the effort-reward imbalance, the severity of the work-family conflict, and the family-work conflict, and the intensity of stress-inducing student behaviour. The most important factors were the effort-reward imbalance and the work-family conflict. Burnout is also clearly correlated with turnover intention.

Implications and recommendations: This study has both scientific and practical implications. Research at other types of universities in Poland is recommended for further studies. Moreover, international inquiries would enable an international and multicultural view of the occupational burnout of academic teachers, whilst expanding research onto organizational, social, and personality-related factors would give a more comprehensive view of the studied phenomenon. The practical implications show the need to incorporate strategies for prevention of burnout at state universities of economics.

Originality/value: The research significantly expands the existing knowledge about the level and important antecedents and consequences of occupational burnout among academic teachers. The methodological novelty of the study lies in the unique and multi-dimensional combination of burnout antecedents. The investigation included one of the first applications of the Turnover Intention Scale (TIS-6). The research is also one of the first in the world (and the first in Poland) application of the Burnout Assessment Tool (BAT) among a group of academic teachers.

Keywords: burnout, turnover intention, work-family conflict, family-work conflict, effort-reward imbalance, stress-inducing customer behaviour, academic teachers

1. Introduction

Occupational burnout is one of many possible reactions of the human body to chronic stress related to professional work. There are different concepts of burnout. Researchers describe these concepts as, among others, the inability to maintain an idealistic image of oneself at work (Freudenberger, 1974), growing disappointment with work (Edelwich, & Brodsky, 1980), a sense of lack of significance as an employee (Farber, 1983), loss of a sense of autonomy at work (Burisch, 2000), loss of existential significance of work (Pines, & Aronson, 1988), a sense of lack of competence in professional activity (Cherniss, 1980), or a multi-symptomatic professional crisis which consists of a psychological syndrome

of emotional exhaustion, depersonalisation and a reduced sense of personal achievement (Maslach, 2000, p. 15). Burnout is most often invoked in relation to the so-called auxiliary jobs, i.e. those related to caring for, raising, supporting or protecting other people (Chirkowska-Smolak, 2009, p. 257). These professions include social care, nursing, care for children and elderly people, teaching, health care, rescue, and police work. The risk of burnout is in a way part and parcel of these professions (Zbyrad, 2017, p. 87).

Teachers providing educational and caring services are a professional group in which occupational burnout develops frequently, which has been confirmed by numerous studies conducted in many countries (e.g. Bakker, & Schaufeli, 2000; Bumen, 2010; Burke, & Greenglass 1993; Capel, 1991; Farber, 1984; Travers, & Cooper, 1993), including Poland (Grzegorzewska, 2006; Karłyk-Ćwik, 2019; Pyżalski, & Merecz, 2010; Smulczyk, & Rygielska, 2013; Witkowski, & Ślazyk-Sobol, 2012). These studies generally concern teachers from kindergartens, primary and secondary schools. Academic teachers are less frequently the subject of research in the field of burnout, yet their work also consists to a certain extent in providing care and upbringing, and not only in the transfer of specialist knowledge. It is associated with responsibility for students, availability to them and solving their problems (not only course-related but often also personal), which often leads to personal emotional involvement. For this reason, the profession of academic teacher can be considered as very absorbing, stressful and mentally exhausting (Majchrzak, 2011, p. 137), whilst it differs in some respects from the work of an ordinary teacher. First of all, most academics combine didactic work with scientific work. Secondly, they teach adults (at least in terms of their metrical age). Thirdly, certain rules concerning their working time, remuneration and career path are different from those who teach minors. These differences indicate that academic teachers should be treated as a separate occupational category, who, in addition to the sources of occupational burnout typical of all teachers, may experience their own specific stressors (see Walczyna et al., 2017, pp. 107-108).

This paper consists of four parts. The first presents a literature review concerning occupational burnout among academic teachers, and allows to determine a wide spectrum of stressors occurring in this profession. The second part presents the research model, research questions and hypotheses. The third part provides the characteristics of the analysed sample and presents the research results. The fourth part contains the conclusions of the study and describes its limitations, as well as suggestions for further research.

2. Literature review

As mentioned, academic teachers are not as often the subject of occupational burnout research as teachers from kindergartens, secondary schools and primary schools. In the literature, however, one can find quite a great deal of interesting studies that shed some light on the scale as well as the causes of occupational stress and burnout of academic teachers. Research conducted among several hundred scientists in the field of biochemistry demonstrated that it is the transition in the sphere of science from academic culture to corporate culture with its typical attributes, i.e. ‘performance fetish’, commercialisation and top-down decision-making, which is largely responsible for burnout and similar processes. This, in turn, leads to, among others, unclear financing, bureaucratic inefficiency and conflict between academics and the administration (Holleman et al., 2015). Research carried out among several hundred Japanese scientists revealed the existence of conflict between work and personal life and a sense of pressure that accelerates burnout (Takeuchi et al., 2018). Similarly, in research conducted among over 2,200 scientists from the Czech Republic, the strongest predictor of burnout was the conflict between work and family life. Factors conducive to burnout also included scientists' involvement in research grants and administrative paperwork (Zábrodská et al., 2018). An overview of empirical studies on burnout carried out among academic teachers indicated a clear relation between burnout and excessive workload and control, along with value conflict resulting from a shortage of resources understood as social support and rewards received (Sabagh et al., 2018).

Another systematic review of empirical data published in the last two decades confirmed that academic staff around the world are exposed to stressful demands of the work environment such as scarcity of resources, time pressure, relationship requirements, job insecurity and insufficient recognition at work (Khan et al. 2019). The findings of several other researchers are similar (e.g. Lackritz, 2004; Poalses, & Bezuidenhout, 2018; Rocha et al., 2020). Burnout among academic teachers was also related to personality traits and family role requirements (Hogan et al., 2014), beliefs, frustration related to didactic and research results (Byrne et al., 2013), and/or perception of organisational justice.

The situation of academic teachers in Poland (and in countries with a similar level of economic development and financing of higher education) is particularly hindered by relatively low salaries and general underfunding of education. One of the effects of this underfunding is the insufficient number of teaching posts, which results in an additional workload for many, if not most, employees. These overtime hours are remunerated, but well below market rates. However, this is not the only problem of Polish universities. The view that the organisational culture and management style prevalent at Polish public universities often have a particularly feudal character, which creates serious ethical problems and harms the dignity of employees, is fairly common and largely justified (see Zawadzki, 2017).

Studies on occupational burnout among employees of universities in Poland are very few. In a survey of 180 teachers employed at the Lublin University of Technology (over one-quarter of the entire university staff), the burnout syndrome significantly affected nearly 20%, and almost 5% to a large extent. The frequency and intensity of experiencing burnout symptoms varied due to the position, seniority and other duties related to didactics (Walczyna et al., 2017). Comparative research conducted by Świętochowski (2011) was particularly interesting. The study included almost 100 academic teachers from three public universities in Lodz (the University of Lodz, the Medical University and Lodz University of Technology) and an equally large group of secondary school teachers. It indicated that the level of burnout among academic teachers is lower than in the case of secondary school teachers (except for a sense of lack of professional effectiveness). In addition, it also showed that academic teachers who are emotionally reactive and not mentally resistant, especially during the critical period of professional development (i.e. at the age of 36–43, when the fate of their further scientific career is usually decided), are more prone to occupational burnout. A specific group of laboratory scientists (166 people) was examined by Robakowska et al. (2018), who determined that the lower risk of burnout concerned people characterised by the lack of higher professional expectations and strong belief in their own competences. In addition, burnout was experienced faster by people seeking to meet high personal standards.

According to experts in the area of issues causing stress at work of an academic teacher in Poland, these stressors can be divided into three groups: organisational factors, interpersonal and individual factors. This is shown in Table 1.

Table 1. Stressors in the profession of academic teacher

Organisational factors
Changing requirements related to the functioning of the education system, where each subsequent change is explained as necessary in response to new social needs (the teacher may feel overwhelmed by the chaos of the diversity of meanings ascribed to education).
Increasing requirements for teachers and expectations regarding their behaviour due to a specific status resulting from new structural and programme solutions (there is a great deal of ambiguity and inability to specify the status related to the role of a teacher as well as a difficulty in determining its own place by this professional group, both from an individual and group perspective).
Lowering the rank of the teaching profession due to the social ambiguity concerning the need to obtain tertiary education as an element justifying attaining a high social status and achieving professional satisfaction.
The objectification of the teacher, where the joy of coexistence with students in creating and reinterpreting knowledge is replaced by the need to meet the requirements of an increasingly hectic pursuit of the annual number of points required for published articles and books.

The organisational culture typical of Polish universities, is characterised by high power distance, collectivism and masculinity, which constitutes an organisational and systemic barrier to the development of academic staff.
The existence of structural dysfunctions that promote a mismatch between the individual and the work environment, observable in virtually every area of human resources management: employee recruitment and induction, assessing and developing careers, as well as working conditions.
Interpersonal factors
Performing the duties of an academic teacher is often associated with the need to provide support to students, solving their problems not only of a scientific nature, which requires a large emotional and time commitment (the high expectations of students towards academic teachers regarding, among others, their ethical values, credibility, fair assessment and excellent preparation for classes, thorough knowledge, commitment and passion passed to students should be emphasized in this respect).
Frequent competition among employees in the implementation of scientific and didactic activities, focusing on individual survival in the labour market, and a decrease in mutual trust, which leads to a situation of insecurity, withdrawal from interaction, isolation, and disbelief in one's own abilities.
Personality-related factors
Personality traits conducive to the development of occupational burnout - e.g.: low self-esteem, a sense of dependence, low agency, and great need for positive reinforcement from superiors combined with strong motivation to work and its initial idealization.
Factors such as gender and age of employees, family and health situation, and lifestyle - which predispose them to higher or lower resistance to stressors at work.

Source: own elaboration based on: Striker, & Wojtaszczyk, 2009, pp. 476-48; Wojtaszczyk, 2008; Gaweł-Luty, 2020, pp. 31--32; Czerwińska, & Kubiak, 2013, p. 194.

Most of these factors may to a greater or lesser extent be a cause of stress and burnout among academic teachers. In this study, the authors took into account only some of these factors for specific reasons, explained in the next section of the paper.

3. Methodology

The purpose of the study was to diagnose the level of occupational burnout of academic teachers from state universities of economics in Poland and to identify its antecedents and consequences. Taking into account the contribution of the literature on stressors and burnout among teachers, including academic teachers, presented in the previous section of the paper, the following hypothesis was developed:

H1: The level of occupational burnout of academic teachers from state universities of economics in Poland is high.

To test this hypothesis and diagnose the level of occupational burnout of academic teachers, it was necessary to measure the level of occupational burnout of the surveyed group of academic teachers. In order to select the appropriate measurement tool, a review of the literature on the measurement of burnout was conducted. Many different tools (questionnaires) are used worldwide, among others: the Maslach Burnout Inventory, the Job Burnout Inventory developed by Ford, Murphy and Edwards, Copenhagen Burnout Inventory created by Kristensen, Borritz, Villadsen and Christensen, Pines and Aronson's Burnout Measure, the Oldenburg Burnout Inventory introduced by Demerouti and Bakker, and the Link Burnout Questionnaire developed by Santinello (2008). Each of these tools has certain pros and cons, its own supporters and opponents. Discussing all of them as well as presenting and critically analysing the arguments for and against their use would be too extensive for the volume of this paper. For this reason, the authors present only the tool chosen for the study and the arguments for its choice.

One of the latest approaches to occupational burnout is the concept developed by Schaufeli and others, who assumed that burnout was a combination of the inability and unwillingness to make an effort at work (Schaufeli, & Taris, 2005). They distinguished seven dimensions of occupational burnout: exhaustion, emotional disorders, cognitive disorders, mental distancing, depressive mood, mental

anxiety and psychosomatic ailments, and based on this developed a measuring tool called the Burnout Assessment Tool (BAT), with a confirmed high reliability and accuracy, a good fit to the assumed model, and the subscales characterised by internal coherence and stability over time (Schaufeli et al., 2020; de Beer et al., 2020). It has already been successfully applied in extensive representative studies in six European countries as well as Japan (de Beer et al., 2020) and Brazil (Vazquez et al., 2019). The tool has also been used in Poland (Basińska et al., 2021). Its advantage, in addition to its relevance to various cultural circles, is that it can be applied to very different professions. These two reasons (i.e. suitability for different countries and different professions) and the existence of the Polish adaptation of the questionnaire (Basińska et al., 2020, 2021) determined the authors' choice of this tool.

The BAT covers two dimensions of burnout: core and secondary. The core dimensions encompass exhaustion, emotional impairment, cognitive impairment and mental distance. The secondary dimensions include psychological distress and psychosomatic complaints (Schaufeli et al., 2020; de Beer et al., 2020). The BAT questionnaire contains 23 items related to the core burnout dimension and 10 items related to secondary symptoms. The respondents respond to the statements on a 5-point scale (from 1 meaning "never" to 5 meaning "always"). Based on the overall score of the questionnaire, which is the average of the total score for all items (altogether or in individual dimensions and scales), each subject can be classified into one of three groups (for which Schaufeli et al. (2000) adopted a very understandable in this context metaphor of road traffic lights): no risk of burnout (green level), at risk of burnout (orange level) and very high risk of burnout (red level). Standards (cut-off values) were defined by Schaufeli et al. (2020) when using the BAT among Flemish employees. The method of statistical norms using the percentile scale is an alternative to the interpretation of results using the cut-off values method (Schaufeli et al., 2020), as shown in Table 2.

Table 2. Levels of occupational burnout based on the BAT questionnaire

Level	Cut-off values for the overall burnout score (BAT – core dimension)	Cut-off values for Exhaustion scale	Cut-off values for Mental Distance scale	Cut-off values for Emotional Impairment scale	Cut-off values for Cognitive Impairment scale	Cut-off values for measuring secondary symptoms
Green	1.00–2.58	1.00–3.05	1.00–2.49	1.00–2.09	1.00–2.69	1.00–2.84
Orange	2.59–3.01	3.06–3.30	2.50–3.09	2.10–2.89	2.70–3.09	2.85–3.34
Red	3.02–5.00	3.31–5.00	3.10–5.00	2.90–5.00	3.10–5.00	3.35–5.00

Source: own elaboration based on Schaufeli et al. (2020).

With regard to occupational burnout, the main research question of this study was: what is the level of occupational burnout in the studied group on the basis of the BAT questionnaire?

The next stage was the selection of variables constituting potential antecedents of burnout. An earlier review of the literature on the occupational burnout of academic teachers showed that there were many factors of burnout and that they varied. Some of these factors are universal (almost global), while others result from local specificity (the organisation and financing of higher education in a given country and features of national culture). In order to narrow them down to those that are potentially the most important from the point of view of occupational burnout of academic teachers in Poland, the authors conducted an expert discussion in a group of several lecturers from three different Polish public universities (the participants worked at the university for over twenty years). In the course of this discussion, the following factors were selected as the most important: excessive workload, insufficient salaries, conflict of values (i.e. personal ethical values with conduct that is necessary to meet the requirements of promotion or remaining in the workplace), feudal organisational culture, conflict between professional and family roles, a sense of entitlement on the part of students and

negative student behaviour. Finally, the research model included those factors whose relation with occupational burnout was already theoretically well explained and empirically proven (e.g. Byrne et al., 2013; Holleman et al., 2015; Rocha et al., 2020; Sabagh et al., 2018; Walczyna et al., 2017; Zábrodská et al., 2018) and for which there are measurement tools verified through validation tests. These included:

1) The imbalance between effort and reward.
2) Conflict of roles (family and professional).
3) A sense of entitlement on the part of students and their hostile attitude.

The research model is presented at Figure 1.

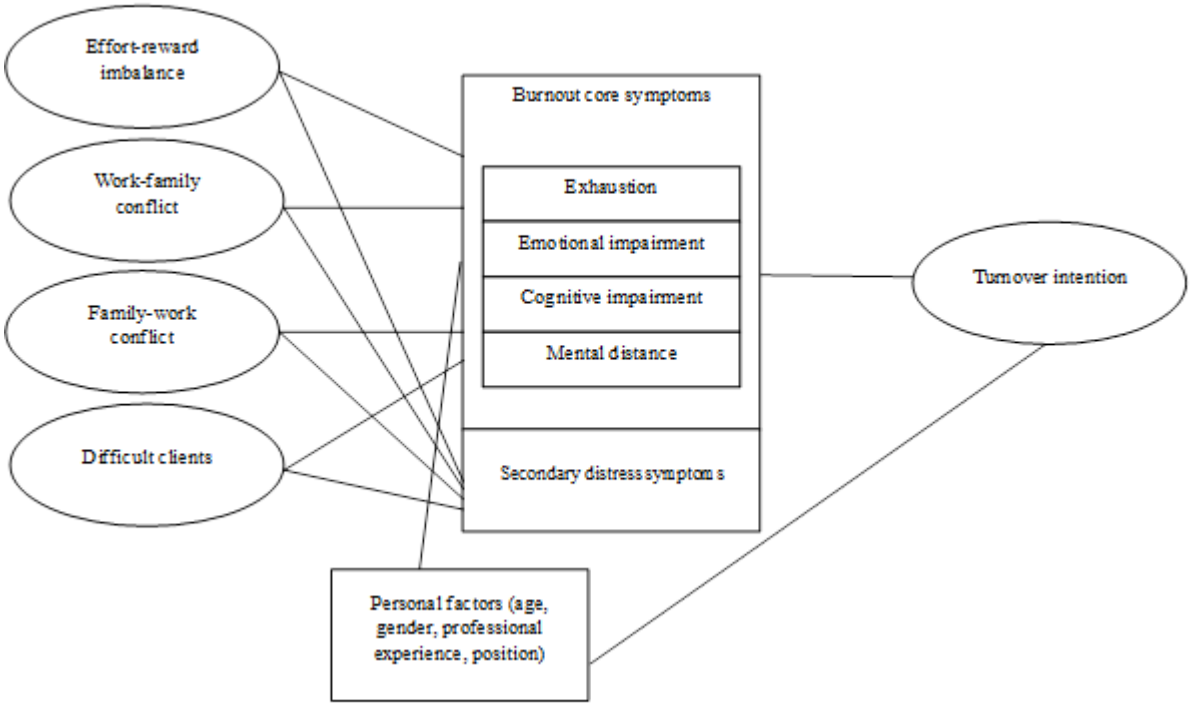

Fig. 1. Theoretical research model

Source: own elaboration.

To measure the imbalance of effort and reward, it was decided to use the Effort-Reward Imbalance (ERI) questionnaire of Siegrist (Siegrist et al., 2004). The Polish adaptation of this tool was developed and successfully applied by Widerszal-Bazyl and Radkiewicz as part of the international research programme "European NEXT-Study (Nurses' Early Exit Study)". The project was implemented in ten European countries, including Poland (see Basińska, & Wilczek-Rużyczka, 2011). The ERI questionnaire consists of 17 items described on the Likert scale and covering two areas (here called Scales, see Basińska, & Wilczek-Rużyczka, 2011):

1. The Effort Scale, which consists of six items related to such issues as: requirements, commitments, a high level of responsibility, time pressure or the occurrence of obstacles in the implementation of tasks, as well as excessive involvement determined by personality traits. The higher the score on this scale, the greater the effort that the examined person experiences in connection with work (the greater the contribution the person makes to perform it).
2. The Reward Scale, which consists of eleven items. It measures the respondent's feelings in relation to remuneration for work, as well as respect and recognition, and a sense of professional security. The answers are scored in such a way that the lower the score, the worse, i.e. the less satisfied the employee with what they receive in return for their work.

Based on the scores of the Effort Scale and Reward Scale, the total Effort–Reward ratio *ER* is calculated as follows:

$$ER = \frac{E}{R \cdot cf} \quad (1)$$

where: *E* – the sum of points for the Effort Scale, *R* – the sum of points for the Reward Scale, *cf* – the correction factor for the number of items on both scales.

If the *ER* is below 1, the received rewards compensate for the efforts made, which is a state of equilibrium interpreted as a lack of professional stress (Basińska, & Wilczek, 2011 , p. 6). If, on the other hand, the ER is greater than 1, then the efforts are not offset by the rewards. A value of more than 1.5 means a large imbalance (great efforts at small rewards) posing a risk of not only a worsened mood but also of a deterioration in the physical and mental health of the employee (Hasselhorn et al., 2004.

The validation of ERI by various researchers gave satisfactory results – Cronbach's alpha reliability coefficient for the Effort Scale was over 0.7 and for the Reward Scale almost 0.8 (Kuemmerling et al., 2003; Potocka, 2012). The exploratory and confirmatory factor analyses of ERI confirmed a good fit of the model to the Effort Scale and the Reward Scale. The ERI has a satisfactory convergent and criterion-related validity and factor structure (Siegrist et al., 2014), and is included in the list of tools used to assess psychosocial occupational hazards published by the World Health Organisation (Orlak, 2014). For these reasons, the authors had no doubt that it was the right tool for the study, even though it does not include all possible hazards – it does not take into account such currently widespread threats as mobbing, discrimination, a lack of control or imbalances in work-life equilibrium. To analyse these risks, one needs to use additional tools or ask additional questions (Potocka, 2012). These issues are obviously very important, but they were not of interest in this study.

Regarding the conflict between family and professional roles, there are different concepts and different methods of measuring it. In this research the authors decided to use a tool by Carlson et al. called the Carlson Scale (Carlson, & Kacmar, 2000), which identifies two directions of conflict: work-family conflict (WFC; when work disrupts family life) and family-work conflict (FWC; when family interferes with work). It simultaneously distinguishes three forms of conflict: time-based, strain-based and behaviour-based (Carlson, & Kacmar, 2000; Radkiewicz, & Widerszal-Bazyl, 2011). The Carlson Scale contains 18 items, nine diagnostic statements for WFC and the same number for FWC. Both subscales (WFC and FWC) contain three items pertaining to the three distinguished forms of role mismatch, i.e. time-based, strain-based and behaviour-based. The respondents have the task of responding to these statements on a five-point scale from 'strongly disagree' (1 point) to 'strongly agree' (5 points). Validation studies of the Carlson Scale provided a great deal of evidence of its relevance (Lapierre et al., 2005). The tool in the Polish adaptation of Radkiewicz and Widerszal-Bazyl (2011) was initially tested among over 260 managers of various levels. Correlation analyses indicated that both global indicators and subscales measuring various forms of conflict had satisfactory internal reliability (Cronbach's alpha coefficients for the nine items related to WFC and FWC were 0.83 and 0.76, respectively). The results of the confirmatory factor analysis confirmed the high reliability of the model, which proved to be a better fit for empirical data than alternative models. Despite some shortcomings, the global dimensions of WFC and FWC and their subdimensions turned out to have many external correlates, i.e. connections with both potential sources of conflict and its expected effects, the pattern of which indicated the fairly high theoretical validity of the questionnaire (Radkiewicz, & Widerszal-Bazyl, 2011). Therefore, the Carlson Scale is undoubtedly a good tool for measuring the conflict of roles in Polish conditions.

On the other hand, there are few tools for measuring the intensity of stress-inducing behaviour of employees' charges, students or customers. For this study, the authors chose the Polish Stress-Inducing Customer Behaviour Scale (SCBS; in Polish: Skala Stresujących Zachowań Klienta − SSZK) developed by Szczygieł and Bazińska (2013). It is based on the concepts of Dormann and Zapf (2004),

who, on the basis of interviews conducted with employees of the service sector, distinguished three classes of the most stress-inducing customer behaviour: excessive requirements, ambiguous expectations and verbal aggression. On the basis of focus surveys with people working in various service professions (waiters, bartenders, shop assistants, taxi drivers, customer service employees in mobile phone sales outlets, and bank customer advisors), Szczygieł and Bazińska (2013) determined two classes of behaviour characterising a difficult customer: harassing behaviour and excessive requirements. The scale for such behaviour was tested in two stages with a total of more than 1000 professionals (catering workers, employees of customer service offices in banks and insurance companies, showroom representatives, shop assistants, and travel agents).

The SCBS contains twelve items relating to two areas (subscales):

1. Hostile Customer Behaviour – measures the hostile attitudes and negative emotions expressed by customers when interacting with employees,
2. Disproportionate Customer Expectations – refers to customer expectations that are difficult to meet, unclear or too high (exceeding the standard service).

The respondents can refer to 12 individual statements on the five-point Likert scale (1 means 'definitely not true' and 5 – 'definitely true'). Szczygieł and Bazińska (2013) determined that the reliability coefficients of their questionnaire measured by Cronbach's alpha coefficient had satisfactory values (from 0.82 to 0.9 for individual subscales). These values confirm the high discriminating power of individual items and their high internal consistency. Psychometric analyses indicate that the SCBS is characterised by high factorial validity. The results of the exploratory factor analysis suggesting a two-dimensional scale structure, were then confirmed by the conducted confirmatory factor analysis. Studies on the validity of the scale showed that a bad SCBS score was significantly correlated with occupational burnout, and negative customer behaviour caused a particular burden in service professions (Szczygieł, & Bazińska, 2013). The SCBS is recommended by other researchers in Poland as a useful tool for employers, personnel managers, as well as occupational health and safety specialists and specialists in occupational medicine (Mockałło, & Najmiec, 2017). These good psychometric properties of the SCBS questionnaire and its native origin as well as its transparency and laconic character (in the positive sense of the word) led to employing this particular tool in the study; in this case, the term 'customer' means 'student.' The authors believe that the questions in the Szczygieł and Bazińska questionnaires are so universal that such an understanding is appropriate.

The last stage of designing the study was aimed at determining the potential consequences of burnout among academic teachers in Poland. It is known that burnout has many consequences for both the employee and the employer. The most frequently studied phenomena related to burnout include job satisfaction, job performance and turnover intention. This study, for several reasons, took into account only turnover intention. Firstly, it is quite obvious that the burnt-out employee is generally dissatisfied (turnover intention is considered by some researchers as the last stage of occupational burnout, cf. Erenkfei et al., 2012), as well as its behavioural manifestation – change of workplace, and in extreme cases – the abandonment of the profession in general (see Maslach et al., 2001; Schaufeli, & Enzmann, 1998). Secondly, in the course of their university career, the authors encountered numerous cases of colleagues who talked about their intention to leave work or actually left it (in general, one did not know the reasons behind it, and could only guess that it was due to different stressors at work). Thirdly, the turnover intention was seen as the issue most worth researching, because the loss of an employee is a very serious problem for the university and for the entire higher education. Finally, and fourthly, the authors did not want to add more questionnaires to the already extensive survey (being afraid that it would discourage the respondents).

To measure turnover intention, the study used the Turnover Intention Scale 6 (TIS-6) developed by Bothma and Roodt (2013, p. 1). It is, as the name suggests, a questionnaire consisting of six items that together measure turnover intention (a one-dimensional construct). Based on a survey conducted among over 2,400 employees from the IT, communication and technology industries, Bothma and

Roodt (2013) found that the TIS-6 questionnaire reliably measures the intention to leave work (Cronbach's alpha was 0.80). In addition, it allowed them to clearly distinguish those who remained in the organisation from those who left, which testifies to its predictive value. The authors used the Polish language version of TIS-6 developed by Baszczyńska et al. (2022) and tested it on the group of 142 Polish public certified accountants.

The following hypotheses were formulated as to the antecedents and consequences of occupational burnout among academic teachers in Poland:

Hypothesis 2: The higher the effort-reward imbalance measured by the ERI questionnaire, the higher the level of occupational burnout measured by the BAT questionnaire.

Hypothesis 3: The higher the work-family conflict score on the Carlson Scale, the higher the level of occupational burnout measured by the BAT questionnaire.

Hypothesis 4: The higher the family-work conflict score on the Carlson Scale, the higher the level of occupational burnout measured by the BAT questionnaire.

Hypothesis 5: The higher the intensity of stress-inducing student behaviour measured by the SCBS questionnaire, the higher the level of occupational burnout measured by the BAT questionnaire.

Hypothesis 6: The higher the level of occupational burnout measured by the BAT questionnaire, the higher the turnover intention measured on the TIS-6 scale.

Hypothesis 7: Occupational burnout measured by BAT is a consequence of effort-reward imbalance measured by ERI, stress-inducing customer behaviour measured by SCBS, work-family conflict and family-work conflict measured by Carlson Scale.

Hypothesis 8: Turnover intention measured by TIS-6 is a consequence of occupational burnout measured by BAT.

Hypothesis 9: Turnover intention measured by TIS-6 is a consequence of effort-reward imbalance measured by ERI, stress-inducing customer behaviour measured by SCBS, work-family conflict and family-work conflict measured by the Carlson Scale.

The study covered academic teachers from Polish state universities of economics, among which: Wroclaw University of Economics and Business, Poznan, Cracow and Katowice, as well as Warsaw School of Economics. The research was approved by The Rector Commission On Research Ethics at Wroclaw University of Economics and Business, and performed according to ethical standards. The questionnaire consisting of the BAT, ERI, Carlson Scale, SCBS, and TIS-6, as well as additional questions, along with the personal data questionnaire was prepared electronically in the Google Forms application. The data collection was performed assuring anonymity. Participation was voluntary. The questionnaire was introduced with detailed information about its content and purpose. The respondents were informed that the aim of the data collection was a scientific study and publication. Moreover, the first question of the questionnaire was about consent. When selecting the "no consent" option, the questionnaire was automatically closed, and no further questions were displayed. Moreover, sending answers was authorised by clicking a "submit" button by the respondents. Identifying the respondents from the publication and the raw data was not possible.

The dissemination of surveys began in November 2021. In the case of Wroclaw University of Economics and Business, the invitation to participate in the survey were sent, along with a link to the questionnaire, to all employees of the University using the electronic internal communication system (courtesy of the Vice-Rector of this University). In the case of the other four universities, the authors sent invitations to participate in the survey by e-mail to those employees of those universities who were known to them, at the same time asking to disseminate the invitation to their colleagues. The collection of the questionnaires was completed at the end of March 2022. The counter in the Google Forms app identified 142 questionnaires. After checking their content, twelve were rejected, because either the university in which the respondent works or his/her position was not indicated. As a result,

in total, there were 130 questionnaires correctly completed by individuals from the target group. The data from those questionnaires were subjected to statistical analysis using Microsoft Excel and Statistica v.13.3.

Out of the 130 respondents, 78 were women and 52 men (60% and 40% respectively). The vast majority were employed in research and didactic positions – 113 people (87%); only 17 (13%) held purely didactic positions. The largest number of the respondents worked at the University of Economics (UE) in Wroclaw – 49, followed by the UE in Poznan – 42, the UE in Katowice – 24, the UE in Cracow – 9, and finally the Warsaw School of Economics – 6. When it comes to the academic degree, individuals with a doctoral degree formed the largest group – 59 (45%), followed by doctors hab. – 48 (37%), magisters (MAs) – 19s (15%), and professors – 3 (2%) One person did not confirm their academic degree. As for the positions held, there were: 55 assistant professors, 47 professors or university professors, twelve assistants, six senior lecturers, five lecturers, three foreign language lecturers, and one doctoral student Again, one person did not provide this information. The respondents were aged 26 to 58 years. More than half (72 people – 55%) were married or in a relationship with a child or children under their care, 32 people (25%) were in a relationship but childless, 16 people described themselves as single, and seven were raising a child or children alone. One person provided their marital status as divorced, one as returning to work after maternity leave related to the birth of another child, and one did not provide information on family status.

The reliability of the employed tools was analysed using the alpha Cronbach coefficient. The results of such analysis for the research on the occupational burnout of academic teachers from state universities in Poland are presented in Table 3.

Table 3. The number of items, mean, standard deviation and alpha Cronbach coefficient for the questionnaires used in the research

Scale/subscale		Number of items	Mean (individual data)	Standard deviation (individual data)	Cronbach alpha coefficient
BAT		33	2.5690	1.0839	0.94
	BAT core symptoms	23	2.5298	1.0501	0.94
	BAT secondary symptoms	10	2.5692	1.1530	0.86
ERI		17	2.4099	1.5367	0.87
	ERI effort scale	6	2.7987	1.4761	0.77
	ERI reward scale	11	2.1979	1.5276	0.86
Carlson Scale		18	2.9282	1.1155	0.89
	Carlson Work-Family Conflict scale	9	3.0906	1.0727	0.86
	Carlson Family-Work Conflict Scale	9	2.7658	1.1337	0.85
SCBS		12	2.9179	1.2924	0.91
	SCBS Hostile Customer Behaviours	6	2.5256	1.2651	0.89
	SCBS Disproportionate Customer Expectations	6	3.3103	1.1966	0.85
TIS6		6	2.9011	1.3413	0.84

Source: own elaboration.

The internal consistency of the particular scales and their subscales turned out to be satisfactory. The value of the coefficients in each case was higher than 0.70, which is defined by literature as satisfactory. The Cronbach alpha coefficient took the highest values for the BAT and SCBS scales, which indicated the excellent internal consistency of the scale (George, & Mallery, 2020).

4. Results

4.1. The level of occupational burnout in the studied group

The average BAT score in the core dimension in the studied group was 2.53. This can be described as good since, according to the standards set by the BAT authors, it is still located within the green range (meaning no risk of burnout), although almost on the border with orange (interpreted as a risk of burnout). This average score was almost the same for both sexes: women 2.53 and men 2.52. The coefficient of variation for the standard deviation from the mean value was 0.24. The maximum value (worst) was 4.22 and the minimum value (best) was 1.30. The dispersion of results was therefore large. Hence, it was necessary to examine the individual scores and classify them. Here, the authors also applied the cut-off point method, as it has a more specific interpretation. It turned out that the BAT score in the core dimension for 22% of the respondents (28 out of 130 people) indicated a very high risk of burnout (in accordance with the standards specified by the BAT authors). The result concerning the following 20% of the respondents (26 out of 130 people) indicated a risk of burnout, while 58% of the respondents had a score indicating no risk of burnout. Although this was a much better result than in the analogous study of Polish statutory auditors, in which as many as 62% of the respondents were considered at risk of burnout or very high risk of burnout (Baszczyńska et al., 2022).

There were some differences between the average values of burnout for individual academic degrees and universities. The worst average BAT score (in the primary dimension) was obtained by the magisters (MAs) – 2.69 (this is already orange, i.e. a risk of burnout). The score for doctoral degree holders and doctors hab. was better (2.51 and 2.53, respectively), and definitely the best for professors – 1.87. It was not possible to draw too strong conclusions from these results, as the group of MAs was much less numerous than the group of doctors and doctors hab., and there were only three professors. Perhaps, however, the scores reflect the following regularity: the higher the academic degree (the higher the level of career), the lesser the severity of burnout syndromes.

In terms of individual universities, the average BAT scores in the core dimension were: 1.96 for Cracow, 2.28 for Katowice, 2.56 for Wroclaw, 2.60 for Warsaw, and 2.74 for Poznan. The difference between the best and the worst score is very considerable. The worst score, i.e. in Poznan, is definitely within the orange range (the risk of burnout). However, the conclusion that the Poznan university has the highest level of burnout is obviously too far-reaching (considering the fact that the groups from Warsaw and Cracow are not very numerous and even the most numerous groups, i.e. from Wroclaw and Poznan, were not representative of these universities).

It was found that the occupational burnout level in the studied group was not high, therefore hypotheses H1 was rejected.

Next, the study addressed the factors selected as potentially related to burnout in the studied group and to the hypotheses related to them.

4.2. Effort and reward imbalance and its relationship to burnout

The vast majority of respondents, as many as 100 (77%), had a score below 1 in the ERI questionnaire, indicating an imbalance between effort and reward (this generally good situation was confirmed by the average score of all the questionnaires, which was 0.84); 15 respondents (11.5%) had a score indicating an imbalance between effort and reward (ER > 1), whereas 15 people experienced a large

imbalance (ER > 1.5). The difference between women and men was notable; the men's mean ER was 0.72 and the women's 0.91. 29% of the surveyed women and only 13% of the surveyed men experienced imbalance or large imbalance in effort and reward.

The hypothesis of the relationship between the effort-reward imbalance and burnout was tested using Spearman's rank correlation coefficient, and was 0.65, which indicated a positive relationship of medium strength.

Therefore, hypothesis 2 of the relationship between the effort-reward imbalance and occupational burnout was confirmed, more specifically: the higher the effort-reward imbalance ratio measured by the ERI questionnaire, the higher the level of burnout measured by the BAT questionnaire. In this and subsequent cases, burnout refers to the core BAT dimension.

4.3. Work-family and family-work conflicts and their relation to burnout

Unlike in the BAT and ERI, on the Carlson Scale there are no cut-off points that determine the ranges of scores with a specific interpretation. It is only known that the higher the score, the worse it is (i.e. the greater the intensity of the conflict), with the minimum possible score for each of the two types of conflict (i.e. the WFC and the FWC) being 9, and the maximum being 45. In the studied group, the score for the WFC was 27.82 and 24.89 for the FWC (note that there were no large differences between women and men). If one assumes that the theoretical average value of 27 for each conflict means a neutral level, it could be concluded that in the studied group the intensity of conflicts was not great (especially for the FWC). Such an interpretation is a certain simplification (quite reasonable). According to Widerszal-Bazyl (expressed in personal e-mail correspondence), co-author of the Polish adaptation of the Carlson Scale, it is better to assess the result of this scale in relation to the average scores recorded in other studies carried out with its use (there are not many such studies, one can distinguish Spector et al. (2007) and Loscalzo et al. (2019)). However, the aim of this study was not so much to assess the level of WFC and FWC in the studied group, as to determine their relationship with occupational burnout.

The hypothesis of the relationship between the effort and reward imbalance and burnout was tested using Spearman's rank correlation coefficients, which amounted to 0.63 for the WFC and 0.45 for the FWC. In both cases, this indicated a positive relation of medium strength.

Therefore, the hypothesis of the relationship between the WFC and occupational burnout was confirmed, more specifically: the higher the score of work-family conflict on the Carlson Scale, the higher the level of occupational burnout measured by the BAT questionnaire.

Hypothesis 3 of the relationship between the FWC and occupational burnout was confirmed, more specifically: the higher the score of family-work conflict on the Carlson Scale, the higher the level of occupational burnout measured by the BAT questionnaire.

4.4. Stress-inducing student behaviour and its relationship to burnout

The interpretation of SCBS scores is analogous to the Carlson Scale. The higher the score, the more (more often) the respondents encounter stress-inducing behaviour of their 'customers'. In the studied group of academic teachers, the average score from all questionnaires was 35.02 (almost identical for women and men), i.e. slightly below the neutral level of 36 points. Neutrality in this case means that the question about the occurrence of a certain stress-inducing student behaviour was on average met with the answer 'difficult to say' (referring to average scores all the time.) while alternative answers were: 'definitely not true', 'rather not true', 'rather true' and 'definitely true'). Individual respondents, however, experienced stress-inducing behaviour of their students to a very different degree. The best score (the lowest intensity of stress-inducing student behaviour) was only 14, while the worst (the highest intensity of stress-inducing student behaviour) was 57. As for the two types of stress-inducing behaviour distinguished in the SCBS, the respondents (on average) experienced excessive

requirements much more often than aggressive behaviour (the average score for each response for excessive requirements was 3.31, while for aggressive behaviour – 2.53).

The hypothesis of the relation between stress-inducing student behaviour and burnout was tested using Spearman's rank correlation coefficient. It was 0.44, which indicates a positive relation of medium strength.

Therefore, hypothesis 4 that stress-inducing student behaviour is related to burnout was confirmed, more specifically: the higher the stress-inducing student behaviour index measured by the SCBS questionnaire, the higher the level of occupational burnout measured by the BAT questionnaire.

4.5. Turnover intention and its relationship to burnout

The average score in the TIS-6 questionnaire was 17.38 in the studied group, i.e. slightly below the mid-range of possible results (ranging from 6 to 30 inclusive; the more, the worse). It was very similar for both sexes (17.43 for women and 17.30 for men). In the TIS-6 (as in the Carlson and SCBS Scales), there were no cut-off values on the basis of which the scores would be given a specific qualitative interpretation (as in the BAT and ERI). They can only be described in such a way that in the examined group the turnover intention was (on average) slightly smaller than the average theoretical score resulting from the construction of TIS-6 (which can be understood as neither large nor small).

In the research model, turnover intention was a potential consequence of occupational burnout. The hypothesis of the relationship between turnover intention and burnout was tested using Spearman's rank correlation coefficient. This was 0.66, which indicates a positive relationship of medium strength.

Therefore, hypothesis 5 of the relationship between occupational burnout and turnover intention was confirmed, more specifically: the higher the level of occupational burnout measured by the BAT questionnaire, the higher the turnover intention measured on the TIS-6 scale.

4.6. The antecedents and consequences of occupational burnout–regression model

In the study, the following interdependencies were analysed:

$$BAT = f(ERI,\ Carlson, SCBS),$$

$$TIS = f(BAT),$$

and $TIS = f(ERI,\ Carlson,\ SCBS)$.

Consequently, regression models were obtained.

$$BAT = -0.188 + 0.329ERI + 0.530Carlson + 0.141SCBS \quad (2)$$

For this regression, the determination coefficient equals 0.9987, indicating a very good fit of the regression model to empirical data. All considered variables are statistically significant.

Therefore, hypothesis 6 was confirmed. Occupational burnout measured by BAT is a consequence of effort-reward imbalance measured by ERI, stress-inducing customer behaviour measured by SCBS, work-family conflict and family-work conflict measured by the Carlson Scale.

$$TIS = 0.341 + 0.997BAT \quad (3)$$

The determination coefficient equalled 0.9965, indicating a very good fit of the regression model to the empirical data. The independent variable was statistically significant (p-value = 0.0000).

Therefore, hypothesis 7 was confirmed. Turnover intention measured by TIS-6 is a consequence of occupational burnout measured by BAT.

$$TIS = 0.341 + 0.692ERI + 0.186Carlson + 0.120SCBS \quad (4)$$

The determination coefficient equalled 0.9973, indicating a very good fit of the regression model to the empirical data. The variables ERI and Carlson were statistically significant (p-value = 0.0000). The variable SCBS turned out to be statistically insignificant.

Therefore, hypothesis 8 was partly confirmed. Turnover intention measured by TIS-6 is a consequence of effort-reward imbalance measured by ERI, stress-inducing customer behaviour measured by SCBS, work-family conflict and family-work conflict measured by the Carlson Scale.

The next stage of the study concerned a model in which the dependent variable BAT was a binary variable BAT(0-1), taking values: 0 – for occupational burnout below the high level for the BAT variable, and 1 – for high and very high levels of occupational burnout for the BAT variable. In the study, the 75th percentile of the analysed variable was adopted as the cut-off point. The model is following:

$$BAT(0-1) = f(ERI,\ Carlson,\ SCBS,\ TIS,\ age,\ gender). \tag{5}$$

The chi-square statistic and p-value indicate that the analysed model significantly differs from the model with only the intercept. However, only the variables ERI and Carlson were statistically significant (p-value < 0.05). The next model included only these two variables. The new model demonstrated a good fit to the data. The parameters for the variables ERI and Carlson were statistically significant at a p-value less than 0.05, indicating that these variables are significantly associated with occupational burnout.

The logistic regression equation is formulated as follows:

$$P(\mathrm{X}) = \frac{e^{-9.031+1.503ERI+1.283Carlson}}{1+e^{-9.031+1.503ERI+1.283Carlson}} \tag{6}$$

The positive parameter estimates corresponding to the ERI and Carlson variables indicated that an increase in these values leads to an increased probability of high occupational burnout, with a more noticeable effect for the ERI variable.

5. Discussion and conclusions

Out of 130 surveyed academic teachers from state universities of economics in Poland, one in five qualified to be considered at very high risk of burnout (on the basis of the BAT questionnaire), just as one in five qualified to be considered at risk of burnout. On the other hand, approximately three out of every five of the respondents could be considered as not at risk of burnout (on the basis of the applied diagnostic criterion).

This burnout turned out to be related to:

1) the effort-reward imbalance experienced by the respondents (determined on the basis of the ERI questionnaire),
2) the severity of the work-family conflict (as determined by the Carlson Scale),
3) the severity of the family-work conflict (as determined by the Carlson Scale),
4) the intensity of stress-inducing student behaviour experienced by the respondents (found on the basis of SCBS).

Among the four factors mentioned above, the most important were the effort-reward imbalance as well as the work-family conflict (they had the highest absolute values of Spearman's rank correlation coefficients). Burnout was also clearly correlated with turnover intention (as determined on the basis of TIS-6).

The conducted study significantly expands the existing knowledge about potential important antecedents and consequences of occupational burnout among academic teachers, in particular in Poland). It was one of the first in the world (and the first in Poland) research on the burnout of academic teachers in which the BAT was used. What is innovative in this study is the selection of stress-

inducing student behaviour as one of the causes of burnout in this professional group and the confirmation that this kind of behaviour is actually related to burnout (certainly in the studied group). As for the other important findings of the study, it has confirmed the relation, shown in many other studies, between burnout and the excess of work (effort) and the simultaneous lack of resources (rewards), between burnout and the role conflict, as well as between burnout and turnover intention.

The antecedents of burnout among academic teachers are not limited to the factors that were included in the study. Important factors contributing to the burnout of university employees may also include organisational culture, management style and organisational climate (see Dinibutun et al., 2020). In addition to these types of organisational and social factors, there are also factors related to the personality of the employee, resistance to stress, etc.

The study has limitations related to sampling – it is not random and representative for the entire community of Polish academic teachers. Its results should therefore not be generalised for the whole scientific and didactic community. Undoubtedly, however, the study points to the frequent occurrence of occupational burnout among academic teachers in Poland and provides strong indications as to its primary antecedents. It is worth verifying this in further research at other Polish universities, particularly in research conducted on a nationwide, representative and random sample.

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