

## ORIGINAL PAPER

PERINATAL STRESS EVENTS AND BURNOUT AMONG MIDWIVES IN POLAND.  
THE MEDIATING ROLE OF SELF-EFFICACYArkadiusz Mirosław Jasiński 

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## Abstract

**Aim:** The aim of the study was to check whether there is a link between perinatal stress events, self-efficacy, and burnout in a group of midwives. According to the Job Demands-Resources model (JD-R model), perinatal stress events may be linked to burnout, and self-efficacy can play a mediating role in this connection. **Design:** A quantitative longitudinal study. **Methods:** The research involved 99 midwives working in the Polish public health service. **Results:** Stepwise regression analysis showed a direct relationship between perinatal stress events and emotional exhaustion ( $\beta = 0.12$ ;  $p = 0.02$ ). The results of mediation analysis suggest that self-efficacy plays the role of mediator in the perinatal stress events – emotional exhaustion relationship ( $\beta = -0.12$ ;  $p < 0.001$ ), and plays the role of suppressive variable in the perinatal stress events – disengagement from work relationship, ( $\beta = -0.10$ ;  $p = 0.008$ ). Seniority acts as a moderator between perinatal stress events and exhaustion in the relationship mediated by self-efficacy ( $\beta = 0.07$ ;  $p = 0.04$ ). **Conclusion:** The results confirm the assumptions of the JD-R model regarding the link between job demands, job resources, and occupational burnout. Perinatal stress events can be a predictor of exhaustion, especially when combined with low self-efficacy and limited seniority.

**Keywords:** burnout, JD-R model, midwives, self-efficacy, work-related stress.

## Introduction

The results of existing research indicate that burnout syndrome is associated with negative consequences for employees, and their behavior at work (Maslach, et al., 2001). Researchers describe burnout as a phenomenon associated with decreased work efficiency, low work commitment, and poor job satisfaction, among others (Baka & Derbis, 2012). The social importance of the phenomenon of occupational burnout is confirmed by its inclusion by the World Health Organization in the International Statistical Classification of Diseases and Related Health Problems – ICD-11 (World Health Organization [WHO], 2019). The ICD-11 indicates that it is a specific disorder associated with exposure at work to a stressful or traumatic event, or series of such events, or adverse experiences.

In this article, burnout is analyzed using the Job Demands-Resources (JD-R) model (Demerouti, et al., 2001) applied to a group of midwives. Its authors assume that burnout is the result of excessive demands at work which are not balanced by sufficient resources. Burnout is composed of two elements: exhaustion and disengagement from work.

This model assumes that exhaustion is the result of physical, emotional, and cognitive overload (Demerouti, et al., 2003). Disengagement from work is understood as a withdrawal attitude towards work and factors related to it, including patients, co-workers, professional duties, values, and organizational culture. The literature indicates that disengagement from work involves perceiving work as worthless and of little interest (Baka & Basińska, 2016). Midwives may be particularly vulnerable to high demands at work. First, because midwives provide care for mothers and newborn children, and while performing their duties, are exposed to difficult situations, often threatening the life of the child or mother. Second, the JD-R model assumes that each work environment generates its own specific demands, requiring specific resources and ways of dealing with the burden. Specific demands at work can lead to an increase in resources required, which are negatively affected by burnout levels.

*Relationship between stress at work and burnout in midwives*

The phenomenon of occupational burnout in midwives has been studied since at least the 1980s (Beaver et al., 1986). Studies among Dutch midwives (Bakker et al., 1996) show that they experience higher levels of burnout and higher levels of job satisfaction compared to nurses. Despite several

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decades of research, the relationship between stressful work events and burnout continues to interest researchers (Banovcinova & Baskova, 2014; Creed et al., 2017). The literature indicates insufficient research on the professional functioning of midwives, although this has been a subject of interest since at least the 18th century (Bianchi et al., 2019). The most recent studies pay particular attention to traumatic stress in this profession. In Australia, 93.6% of midwives have experienced a traumatic birth-related event in their work (Toohill et al., 2019). The trauma resulted from experiencing a difficult event in person or witnessing such an event. In a group of Dutch midwives, 13% experienced at least one work-related trauma event (Kerkman et al., 2019), while among British midwives, the rate was 33% (Sheen et al., 2015). In this article, stress at work for a midwife is limited to difficult situations directly related to childbirth: perinatal stress events.

A study of the severity of stress events and occupational burnout of midwives in Polish conditions is justified in light of the fact that the majority of Polish studies to date have concerned groups of nurses (Basińska & Wilczek-Rużyczka, 2011; Wilczek-Rużyczka & Kalicińska, 2015). The results of a meta-analysis indicate that in Poland, in the period 2004–2014, about 30 articles on occupational burnout of nurses were published (Wilczek-Rużyczka & Zaczek, 2015), only one of which considered this phenomenon in terms of the JD-R model. The Polish psychological literature does not pay attention to the distinction between nurses and midwives, although the study of midwives and nurses as separate professional groups has been practiced in world psychology for almost 30 years (Carlisle et al., 1994; Wheeler & Riding, 1994). There is little research on occupational burnout among midwives in Poland. The works published so far have not been exploratory studies, but reviews (Kicia et al., 2018), descriptive studies (Baran & Piątek, 2011), or studies based on Maslach's theory (Gruszczyńska et al., 2014). Polish research explaining occupational burnout in midwives in terms of the JD-R model has been limited to taking into account the resources of the working environment, and has focused on the relationship of occupational burnout with a single specific aspect of midwives' work: their assistance in the termination of pregnancies (Banasiewicz et al., 2017).

#### *Self-efficacy as a resource for midwives*

Self-efficacy has been defined by Bandura as a personal resource: the perceived or actual ability of an individual to overcome the demands of the

environment (Bandura, 1996). Bandura assumed that poor performance in coping with difficulties may not be the result of a lack of skills, but of a low sense of self-efficacy (Bandura, 1978), and suggested that self-efficacy can mediate in the experience-activity relationship (Bandura, 1982). Bandura (2006) points out that self-efficacy is not global in nature, but can apply separately to each sphere of functioning. The results of cross-sectional studies on a sample of Iranian midwives indicate that self-efficacy can be important in explaining the negative effects of workload on the work of midwives (Azmoode et al., 2017). Self-efficacy is not a static trait; its level may decrease after experiencing negative events at the beginning of one's career (Fencl & Scheel, 2005). A higher level of self-efficacy is positively related to seniority, higher professional skills, and feelings of competence.

Recent results indicate that self-efficacy may be related to intrinsic motivation in midwifery work (Dağlar et al., 2018). Research also shows that low self-efficacy can be a predictor of occupational burnout (Salanova et al., 2002). Self-efficacy can be crucial for health professionals working in the public sector (Cox & Simpson, 2016). Symptoms of depression, anxiety, and helplessness are positively associated with low self-efficacy (Schwarzer & Fuchs, 1996). Increased self-efficacy in circumstances of exhausting emotional experiences at work can lead to higher engagement in work (Bakker & Sanz-Vergel, 2013). Thus, self-efficacy is a resource that can inhibit the health impairment process leading to occupational burnout (Schaufeli & Bakker, 2004). In the ICD-11 classification for disorders identified as burnout, a stressor is a necessary but not sufficient causal factor. It is worth identifying other variables that explain burnout processes. As self-efficacy is dependent on experiences, including those that are stressful, it may be related to the level of burnout. It can be assumed that a sense of self-efficacy acts as a mediator in the relationship between the stressful events of childbirth and occupational burnout. The literature indicates that the level of self-efficacy may result from experience of mastery or failure at work, or experiencing that of others (Cox & Simpson, 2016), which may be an argument for the relationship between perinatal work stress, level of self-efficacy, and occupational burnout. Guided by the results of most existing research, the model includes the variable of seniority, which acts as a moderating variable, mediated by self-efficacy, in the relationship between stressful events surrounding birth and occupational burnout. The results of previous studies indicate a strong correlation

between greater seniority, lower occupational burnout (Bakker et al., 1996; Sandall, 1998), and higher self-efficacy (Fencl & Scheel, 2005). Based on the JD-R model, and the above considerations, it can be assumed that if perinatal stress events (job demands) are positively related to the level of self-efficacy (job resources), and this is negatively related to the level of burnout, the effect will be stronger in midwives with lower seniority.

## Aim

The aim of this work was to examine whether there is a link between perinatal stress events, self-efficacy, and burnout in midwives. The specific objective was to examine longitudinal research to determine whether the relationship between perinatal stress events (independent variable) and burnout (dependent variable) is mediated by self-efficacy, and whether this relationship is moderated by seniority. The research model was centered around the following questions:

- 1) Are perinatal stress events positively correlated to level of burnout?
- 2) Is self-efficacy negatively correlated with level of occupational burnout?
- 3) Does self-efficacy mediate the relationship between perinatal stress events and burnout?
- 4) Is the mediating role of self-efficacy in the relationship between perinatal stress events and burnout moderated by seniority?

## Methods

### Design

A quantitative longitudinal study.

### Sample

The sample consisted of 99 midwives (only women) working full-time in the Polish public health service (financed solely by the Polish state). The sample was composed of volunteers. The age of the participants ranged from 24 to 63 years (mean = 43.65; SD = 11.23). Seniority of the participants ranged from one to 40 years (mean = 20.11; SD = 11.91). The midwives participating in the study came from 12 different hospitals from all over Poland. The participants worked in maternity (48.48%), gynecological (23.23%), delivery (21.21%), and neonatal (7.07%) wards. The educational structure was as follows: midwifery high-school (6.06%), bachelor's degree in midwifery (68.68%), master's degree in midwifery (25.25%).

## Data collection

### Perinatal Stress Events Scale (PSES)

The PSES is an original tool constructed within the framework of the present research project. One of the goals of the realized research project was to design a psychological scale to measure perinatal stress. The preliminary version of the questionnaire was based on a sample of 152 midwives. One factor structure of scale was confirmed by results of Exploratory Factor Analysis and Confirmatory Factor Analysis. Structural equation modeling fit indexes were: RMSEA = 0.09; CFI = 0.96; TLI = 0.94. The aim of the scale was to measure the intensity of perinatal stress events in midwives over the previous year. The participants answered the question: "How often have you experienced the following events in your work during the last year?" The scale was made up of six items comprising one factor corresponding to stressful perinatal events (e.g. stillbirth, danger to the life of the child or mother during childbirth). The items were assessed using a four-point Likert scale: *never* (1), *rarely* (2), *frequently* (3), *very frequently* (4). The score of the scale is the sum of points obtained from all items (maximum possible total score is 24 points). The reliability of the scale in the presented study was  $\alpha = 0.88$ .

### General Self-Efficacy Scale (GSES)

The scale measures the strength of an individual's general belief in their effectiveness in coping with difficult situations and obstacles (Schwarzer et al., 2001). The GSES consists of ten statements which participants decide are true or false on a scale from *no* (1) to *yes* (4) (e.g., item 8: "When I'm struggling with a problem, I usually come up with some solutions"). The score for the scale is the sum of the points obtained from all the items (with the maximum possible total score being 40 points). The reliability of the scale for this study was  $\alpha = 0.91$ .

### The Oldenburg Burnout Inventory (OLBI)

The OLBI questionnaire measures two components of occupational burnout: exhaustion and disengagement from work (Demerouti et al., 2003). The instrument contains 16 test items. The respondents answer on a four-degree scale from *decidedly agree* (1) to *decidedly disagree* (4). The sum of item scores divided by their number for the exhaustion and work distance subscale gives the results for these subscales (range: 1–4). The higher the score, the greater the level of exhaustion (e.g.: "After my work, I usually feel

worn out and weary”), and disengagement from work (e.g.: “Sometimes I feel sickened by my work tasks”). For the present study, the Polish version of the questionnaire was used (Baka & Basińska, 2016). The reliability of the scales in the study for exhaustion was:  $\alpha = 0.71$ , and for disengagement from work:  $\alpha = 0.78$ . The OLBI questionnaire was chosen because it allows for an in-depth and reliable examination of occupational burnout in terms of the JD-R Model. The choice of the OLBI is justified by the results of the study, suggesting that it may be particularly suitable as a survey for the study of health service professionals (Demerouti & Bakker, 2008). In Poland, studies using the OLBI for the study of health service workers have already been conducted (Baka & Derbis, 2012), but did not involve midwives.

The study was part of a project carried out in 2017–19. Participation in the study was voluntary, and could be withdrawn at any time, and all midwives gave their informed consent. There was no remuneration for participation in the study. Participants were recruited by means of advertisements left in hospital wards, after they had received consent from management. They were provided with a brochure containing the aim of the study and the contact details of the researcher. After initial contact by e-mail / telephone, the researcher met interested midwives. All midwives were informed of the aim of research by the researcher in person. Paper-based questionnaires were manually collected by the researcher from ward-based sources. Data collected manually from ward based sources was entered directly into an SPSS tool. Since the study involved the testing of mediation models, the research was longitudinal. In the first round of the study (T1: perinatal stress events) 152 midwives took part. Two months later, in the second round (T2: self-efficacy), 126 midwives participated. In the next two months, 99 midwives participated in stage three (T3: occupational burnout). The response rate was 65.13%. The final sample of midwives was from the Opole, Lower Silesian, Silesian, and Pomeranian voivodeships. With regard to the number of independent variables, the final sample size allowed detection of the average size of the effects on the relationships under study (Cohen, 1992; Van Voorhis & Morgan, 2007).

### Data analysis

Analysis of the data was conducted using IBM SPSS 21 and PROCESS 3.4 (Hayes, 2017). First, the breakdowns of variables were checked. Pearson’s *r*-correlation analysis and regression analysis were performed. In order to explore issues of postulated

prediction, a stepwise regression analysis was performed for each model (Baron & Kenny, 1986). After the data was standardized, one of the burnout predictors was entered into each regression equation in steps 1 and 2. The research questions concerning mediation and moderated mediation were analyzed using the PROCESS method [based on regression analysis, and the bootstrap procedure (Efron, 1982)], which is resistant to assumptions about the normality of variable distribution in the population, and allows the detection of indirect effects even in a very small sample  $n = 20$  (Creedon & Hayes, 2015). For mediation to occur, first, the B factors for paths “a” and “b” must be statistically significant; second, the indirect effect ( $a*b$ ) must be statistically significant. The analysis of moderated mediation is to determine, first, if there is a mediation effect, and, then, to check if the mediation effect is moderated by different moderator levels (Muller et al., 2005; Preacher et al., 2007).

### Results

In the study group, 97% of midwives had experienced a perinatal stress event over the previous year. The maximum possible score on the scale is 24 points (mean = 13.78; SD = 2.87). In the studied group, the level of self-efficacy was high (mean = 31.1; SD = 8.5), and the level of exhaustion was also high (mean = 2.9; SD = 0.58), while the level of disengagement from work (mean = 2.38; SD = 0.52) was moderate.

The level of exhaustion significantly positively correlated with the intensity of perinatal stress events, and significantly negatively correlated with seniority and self-efficacy (Table 1). The level of disengagement from work correlated significantly negatively with self-efficacy. No statistically significant differences were observed between the level of the examined variables and the ward on which the participants worked.

The research question concerning the positive relationship between perinatal stress events and occupational burnout was partially confirmed. The level of perinatal stress events was found to be significantly positively related only to exhaustion. The second issue, concerning the relationship between self-efficacy and the level of burnout, was fully confirmed. Self-efficacy was found to be negatively connected with exhaustion and disengagement from work.

In the mediation model (model 4, Hayes, 2017), the dependent variable was the components of occupational burnout, the independent variable was perinatal stress events, and the mediator was self-

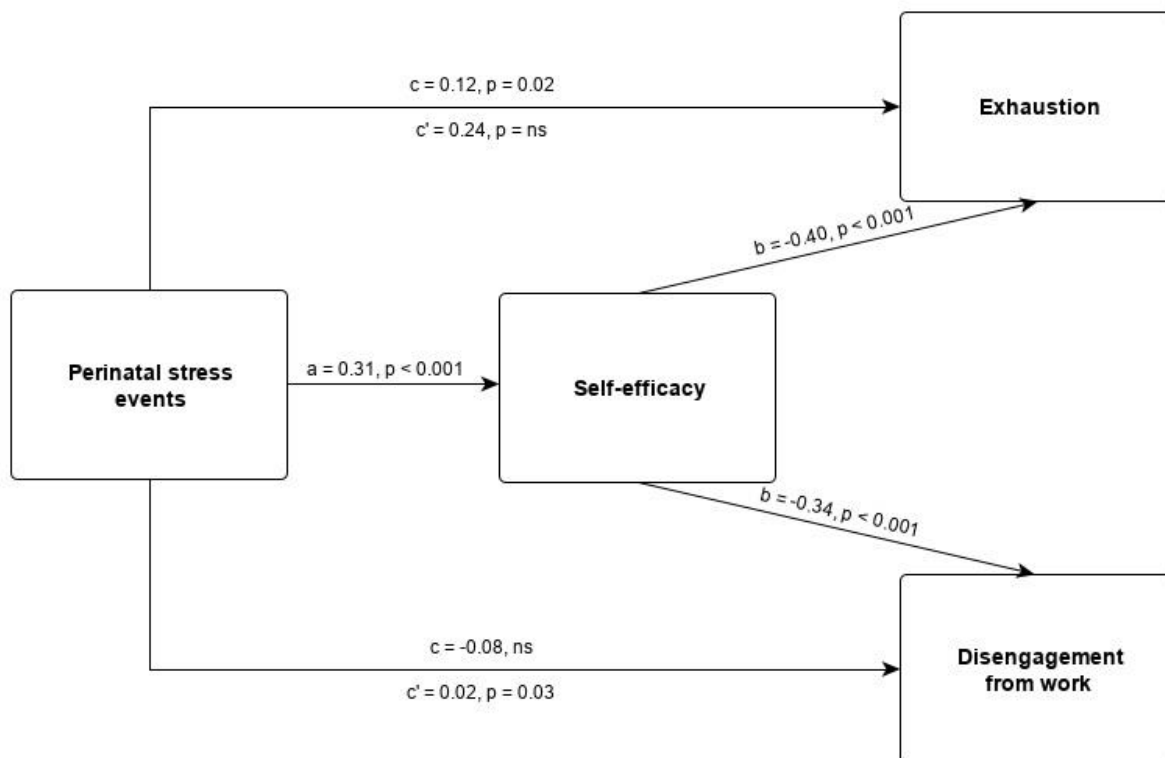
**Table 1** Descriptive statistics and r-Pearson's correlation coefficients for research variables (n = 99)

	mean	SD	Seniority	Perinatal stress events	Self-efficacy	Exhaustion
Seniority	20.11	11.91				
Perinatal stress events	13.78	2.87	0.45 p < 0.001			
Self-efficacy	31.1	8.55	0.14 NS	0.32 p < 0.001		
Exhaustion	2.9	0.58	-0.26 p = 0.005	0.21 p = 0.03	-0.42 p < 0.001	
Disengagement from work	2.38	0.52	0.11 NS	-0.09 NS	-0.34 p < 0.001	0.43 p < 0.001

NS – not significant; SD – standard deviation

efficacy. The results presented in Figure 1 indicate that self-efficacy acts as a mediator in the relationship between perinatal stress events and exhaustion (total effect, path c), since with regulation of predictors, this relationship loses significance (direct effect, path c'). Analysis of path "a" shows that perinatal stress is a predictor of self-efficacy ( $\beta = 0.31$ ;  $p < 0.001$ ). The greater the number of stressful perinatal events, the higher the self-efficacy. The analysis of path "b" indicates that self-efficacy (mediator) is a significant predictor of emotional exhaustion ( $\beta = -0.40$ ;  $p < 0.001$ ). The results suggest that in the relationship between

perinatal stress events and disengagement from work, self-efficacy acts as a suppressor. The apparent lack of connection between perinatal stress events and disengagement from work (total effect, path c) was found to become significant when the level of self-efficacy associated with stressful events at work in the analysis (direct effect, path c') was considered. Analysis of path "a" shows that perinatal stress is a predictor of self-efficacy ( $\beta = 0.31$ ;  $p < 0.001$ ). Analysis of path "b" shows that self-efficacy (suppressor) is a significant predictor of disengagement from work ( $\beta = -0.34$ ;  $p < 0.001$ ).

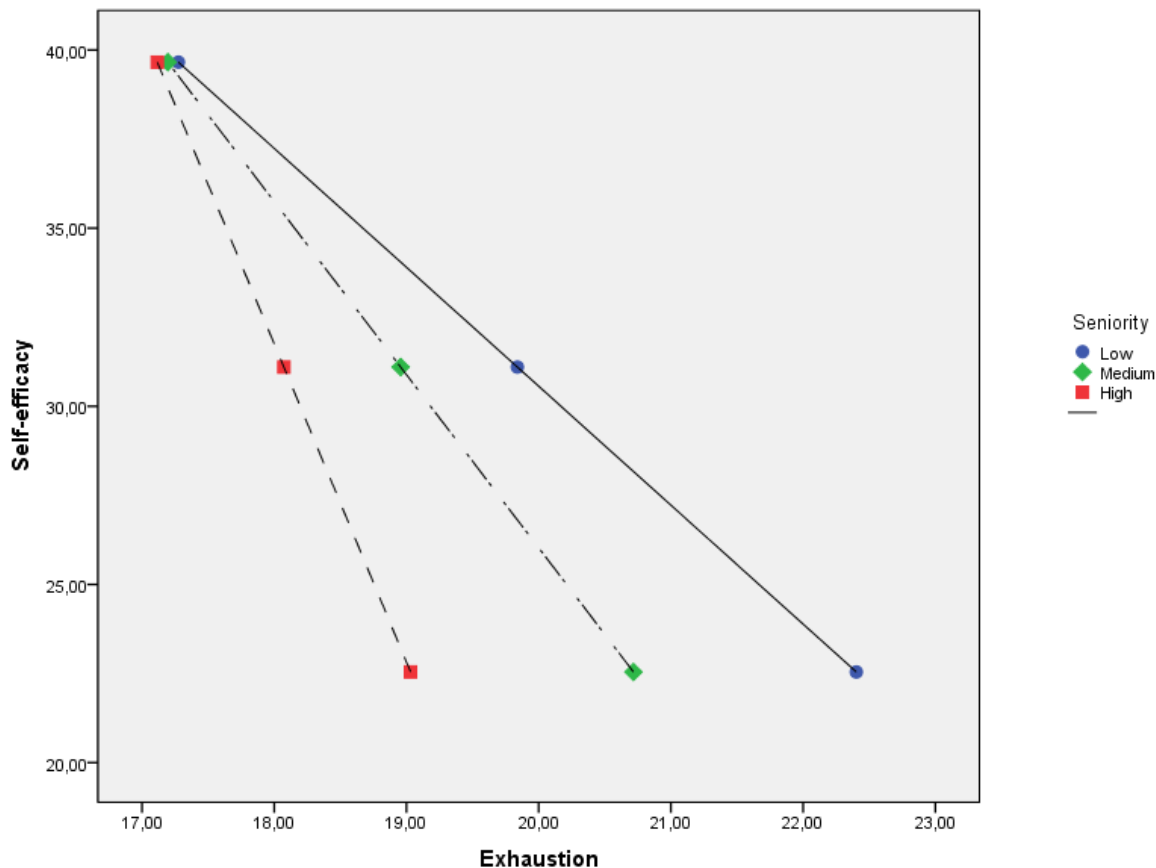
**Figure 1** Models 1 and 2 of mediation

Model 1 – Dependent variable: exhaustion.  $R^2 = 0.19$ ;  $F(2, 96) = 11.22$ ;  $p < 0.001$ ; Standardized indirect effect ( $a*b$ ) = -0.12; 95% CI -0.22, -0.12;  $p < 0.001$ .

Model 2 – Dependent variable: disengagement from work.  $R^2 = 0.11$ ;  $F(2, 96) = 6.31$ ;  $p = 0.005$ ; Standardized indirect effect ( $a*b$ ) = -0.10; 95% CI -0.19, -0.12;  $p = 0.008$ .

The aim of testing the fourth model of moderated mediation (model 14, Hayes, 2017) was to check whether the relationship between perinatal stress events and occupational burnout mediated by self-efficacy is weakened or strengthened by seniority. The model explaining disengagement from work proved statistically non-significant. The model with the resultant variable exhaustion was statistically significant and explained 25% of the variance of the dependent variable. The strongest predictor of

exhaustion was self-efficacy ( $\beta = -0.42$ ;  $p < 0.001$ ). The negative relationship between self-efficacy and exhaustion proved stronger with lower seniority, although the effect of moderated mediation was very small ( $\beta = 0.07$ ;  $p = 0.04$ ). Such a result suggests that the mediation effect of self-efficacy in the relationship between perinatal stress events and exhaustion is stronger in midwives with low and medium seniority (Figure 2).



**Figure 2** Effect of moderated mediation

$R^2 = 0.25$ ;  $F(4, 94) = 8.10$ ;  $p < 0.001$ . Indirect effects: Path  $b_1$ : (low)  $B = -0.33$ ;  $SE = 0.11$ ; 95% CI  $-0.57, -0.12$ ; Path  $b_2$ : (medium)  $B = -0.17$ ;  $SE = 0.06$ ; 95% CI  $-0.31, -0.15$ ; Path  $b_3$ : (high)  $B = -0.10$ ;  $SE = 0.06$ ; 95% CI  $-0.24, 0.03$

## Discussion

The present study explored the relationship between perinatal stress events and components of occupational burnout, examining whether self-efficacy acts as a mediator in this relationship. Additionally, it examined whether seniority moderates the relationship between perinatal stress events and occupational burnout mediated by self-efficacy. The data obtained largely confirmed the research questions. Earlier studies suggested the absence of a direct link between stress and burnout (Toohill et al., 2019). The presented results

are partly consistent with them, as the regression analysis indicates that the level of perinatal stress events is a significant predictor of only one of the components of burnout: exhaustion. The positive relationship between the intensity of perinatal stress events and exhaustion is part of the theoretical assumptions of the JD-R model, in which job demands can lead to burnout. The lack of a significant relationship between perinatal stress events and disengagement from work indicates that the second component of burnout in the JD-R model may be explained by other psychological variables.



The positive relationship between perinatal stress events and self-efficacy can be explained by the concept developed by Bandura (1978, 2006), which assumes that experiencing and coping with difficult events can lead to higher levels of self-efficacy. In light of the results obtained, it might be assumed that the positive relationship between perinatal stress events and self-efficacy is linear. However, it is difficult to find sufficient justification for this conclusion. Will a midwife experiencing long-term perinatal stress events have higher self-efficacy? It is likely that the relationship between perinatal stress events and self-efficacy is curvilinear, i.e., it is positive up to a certain level of stress intensity, becoming negative above a critical value. This assumption is supported by the results of other studies on self-efficacy (Fencl & Scheel, 2005) in which its relationship to challenging experiences was negative. The lack of indication of the critical point above which the relationship between perinatal stress events and self-efficacy becomes negative is one of the limitations of this study. Possibly, the sample selection was flawed, with no midwives who had experienced perinatal stress events at the hypothetical critical level. In the present study, the group consisted of midwives working in maternity, gynecological, delivery, and neonatal wards. In future studies, it would be worth focusing on midwives working in specialist wards, which may be characterized by higher intensity of perinatal stress events, e.g., pregnancy pathology, neonatal pathology, and neonatal intensive care units. Alternatively, the lack of stress events at work in midwives characterized by extreme levels of perinatal stress might be explained by the fact that those who are unable to cope with high levels of stress at work simply leave the profession.

#### *The mediating model of self-efficacy*

Self-efficacy completely mediates the relationship between perinatal stress events and exhaustion. Results of previous studies have confirmed the role of self-efficacy as a mediator in the relationship between resources and exhaustion (Xanthopoulou et al., 2007). In the present study, a significant positive relationship between perinatal stress events and exhaustion was rendered non-significant by self-efficacy. This result confirms the buffer hypothesis of the JD-R model, according to which the negative relationship between job demands (perinatal stress events) and exhaustion may disappear due to the controlling influence of personal resources (Bakker & Demerouti, 2007). This result suggests that perinatal stress events lead to a higher sense of self-efficacy, which translates into lower levels of

exhaustion. In the relationship between perinatal stress events and disengagement from work, the self-efficacy variable acts as a classic suppressor (Cohen & Cohen, 1975). The non-significant relationship between perinatal stress events and disengagement from work found after regression analysis is emphasized if self-efficacy is deployed. This may mean that the variable responsible for the significant relationship between perinatal stress events and disengagement from work is self-efficacy. A cautious conclusion from analysis of this effect is that the intensity of perinatal stress events allows us to explain the level of disengagement from work, provided that we take into account the level of self-efficacy. Perinatal stress is a positive predictor of self-efficacy, which is negatively affected by disengagement from work.

The results of mediation analysis confirm Bandura's assumption (1982) that self-efficacy mediates in the experience-action relationship. Similar conclusions were reached by Salanova et al. (2002), who indicated that a low level of self-efficacy was a predictor of occupational burnout. The status of self-efficacy (personal resource) as an intermediary variable in relation to perinatal stress events (job demand), and burnout confirms the JD-R model's assumptions that resources inhibit the health impairment process leading to burnout (Schaufeli & Bakker, 2004). These results may mean that perinatal stress events are positively associated with burnout components in midwives with lower self-efficacy. The studies conducted so far indicate that self-efficacy has a strong positive relationship with optimism, self-regulation, and self-esteem (Luszczynska et al., 2005). It may be assumed that a high level of self-efficacy in midwives, as theoretically related to the resources indicated above, will weaken the link between perinatal stress and occupational burnout. This result confirms the important role of resources in the relationship between job demands and occupational burnout in midwives, as previously observed in students of this field (Majerníková & Obročníková, 2017). Different self-efficacy status in relation to perinatal stress events with exhaustion (mediator) and disengagement from work (suppressor) may be an empirical argument for the appropriateness of understanding occupational burnout as a two-factor phenomenon (Demerouti et al., 2001; Demerouti & Bakker, 2008).

The fourth research question was partially confirmed, as the effect of moderated mediation was observed in the relationship between perinatal stress events and exhaustion. Perinatal stress has a moderately positive relationship to seniority and self-efficacy. It has a moderate negative correlation with exhaustion.

The results suggest that higher levels of perinatal stress can predict a higher level of self-efficacy, which is a predictor of low exhaustion, and that the strength of this mediation depends on seniority. The moderating role of seniority is important in the group with low and medium seniority (up to 31 years). The effect of moderated mediation was strongest in the group of midwives with less than eight years of seniority, which is consistent with previous results indicating that less than ten years of seniority is a strong predictor of burnout (Hildingsson et al., 2013). This means that as perinatal stress increases, exhaustion increases most in midwives with low self-efficacy and low seniority. The results obtained are in line with the general context of modern research on occupational burnout among midwives, in which there is a strong correlation between high seniority and lower levels of burnout (Henriksen & Lukasse, 2016; Mollart et al., 2013). The strength of the relationship between self-efficacy and exhaustion is similar to the average observed in the meta-analysis ( $n = 22,773$ ), the results of which indicate that this relationship was weaker in people with higher seniority (Shoji et al., 2016). It may be assumed that high self-efficacy is partly due to many difficult demands at work, which older midwives are likely to deal with effectively. According to the definition of the sense of self-efficacy as a resource that helps midwives deal effectively with difficulties (Bandura, 1996), it translates into a higher sense of one's competence, the perception of having sufficient physical, cognitive, and emotional resources, which serves to reduce exhaustion.

In midwives with more than 31 years of seniority, the effect of the moderated mediation is non-significant, which may indicate that self-efficacy plays a particular role in coping with perinatal stress in midwives starting their careers, and in those at the peak of their career. This may be due to the fact that midwives with more than 32 years of seniority already have pension rights, probably have a less stressful family situation, perceive difficulties at work as less stressful, and thus, in this age group, other variables may be the moderator of this mediation. However, these hypotheses require empirical confirmation. To sum up, the mediation effect of self-efficacy on burnout decreases with increasing seniority. These conclusions are in line with the results of earlier studies, which stated that challenging events experienced at the beginning of one's career are particularly important for self-efficacy at work (Fencl & Scheel, 2005).

### *Practical implications*

The present study has a practical dimension. It is intended to draw attention to the degree of occupational burnout in midwives. Nowadays, the prevention of burnout in this profession is seen as a decisive factor in increasing the effectiveness of their work, as international efforts to increase the ease of midwives' work testify. In 2016, the World Health Assembly announced the program Workforce 2030: the Global Strategy on human resources for health (WHO, 2016). The main objective of this initiative is to improve services for health, social, and economic development by ensuring the universal availability of high-quality healthcare workers. The literature indicates that it is midwives who are primarily responsible for maternal and neonatal health outcomes (Sandall et al., 2016), and are seen as essential personnel for the provision of high-quality care for women and newborns (Koblinsky et al., 2016). In order to improve the labor standards of midwives, the International Confederation of Midwives has developed the Midwifery Services Framework (International Confederation of Midwives, 2015), which takes the form of a framework aimed at structuring the professional development of midwives and improving their performance, mainly in developing countries. It aims to improve the professional competence of midwives in consultation with the governments of the participating countries. The results of research on the implementation of the program indicate that it is delivering the expected results (Nove et al., 2018). In many countries, in order to increase work efficiency, students of obstetrics undergo a practical vocational course using, among other things, birth simulators. Research shows that such classes increase levels of self-efficacy (O'Prey et al., 2014). The results of the studies referred to above confirm the validity of implementing similar programs, and suggest that self-efficacy can be a very important resource in the prevention of occupational burnout in midwives.

### *Limitation of study*

The conditions of occupational burnout in midwives have not been the subject of significant interest in Poland. To date, the OLBI burnout studies on medical professionals have omitted midwives. In the present study, midwives obtained higher rates of exhaustion and disengagement from work compared to the most frequently studied group, i.e., nurses, in other studies (Baka & Derbis, 2012; Chirkowska-Smolak, 2018), which is consistent with



the results of Bakker et al. (1996). This suggests further research should be undertaken, as it is clear that midwives may be exposed to higher levels of burnout than other healthcare professionals. Future studies should pay attention to the environmental and personality factors of this phenomenon in midwifery work.

A similar proportion of Australian midwives declared experience of birth-related stress events during their work (Toohill et al., 2019). A limitation of the presented study is the narrowing of occupational stress to perinatal stress events. According to the JD-R model (Demerouti et al., 2001), job demands are more diverse, and include organizational limitations, subjective feelings of workload, and interpersonal conflicts. Future research should take these variables into account in the etiology of burnout in midwives. Moreover, the only resource included in the research model was self-efficacy. This has limited the scope for explaining the variability of occupational burnout. Further work should focus on explaining the role of other resources in the emergence of occupational burnout.

Another limitation of the presented research is the fact that caseload midwives, i.e., those working outside the public health service, providing care for women and children in private practice, and very often conducting childbirths at home, are not included in the study group. Results show that caseload midwives have a lower degree of occupational burnout compared to midwives working in hospitals and in the mixed model (Jepsen et al., 2017), and have more positive attitudes towards work (Dawson et al., 2018). This group may be included in future studies, although midwives who work exclusively as caseload midwives are not found in the Polish health service. Duties in private midwifery practice are combined with work in public and private institutions, and home births in Poland are not popular (annually 346 out of 370,000 births).

As 97% of the midwives surveyed have experienced at least one perinatal stress event in the previous year, attention should be paid to the role of stress management programs. In the UK, the POPPY initiative (Programme for the Prevention of Post-traumatic Stress Disorder in Midwifery) has been implemented to prepare midwifery students and midwives for highly stressful events occurring in their work. The results confirm the effectiveness of the program: a reduction in burnout and absenteeism symptoms, more effective handling of trauma, and higher levels of job satisfaction (Slade et al., 2018; Spiby et al., 2018).

## Conclusion

The study of the burnout process in midwives would seem to be a promising area for psychological research. The aim of the study, i.e., to establish a link between perinatal stress events, self-efficacy, and occupational burnout, has been achieved. The self-efficacy variable acts as a mediator in the perinatal stress – exhaustion relationship, and is a suppressor variable in the perinatal stress – disengagement from work relationship. The study has shown that self-efficacy can be a negative predictor of burnout, and an important resource in dealing with perinatal stress, and that this relationship is particularly important in midwives with low to medium seniority.

## Ethical aspects and conflict of interest

The studies involving human participants were reviewed and approved by Ethics Committee of the Institute of Psychology, University of Opole. The participants provided their written informed consent to participate in this study.

## Funding

This research received no specific grant from any funding agency, commercial or not-for-profit sectors.

## Acknowledgements

I would like to thank Professor Romuald Derbis, Head of the Department of General and Labour Psychology at the Institute of Psychology at the University of Opole for reading a draft of the manuscript and providing remarks which increased the consistency and ultimate scientific value of the article. I would like to thank Assistant Professor Radosław Walczak, from the same institute, for invaluable methodological support during interpretation of the results.

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