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**POSITIVE PSYCHOLOGY INTERVENTIONS  
IN PROFESSIONAL BURNOUT PREVENTION  
AMONG NURSES: A SYSTEMATIC REVIEW**

**Interwencje z zakresu psychologii pozytywnej w profilaktyce wypalenia  
zawodowego wśród pielęgniarek: przegląd systematyczny**

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A - Koncepcja i projekt badania, B - Gromadzenie i/lub zestawianie danych, C - Analiza i interpretacja danych, D - Napisanie artykułu, E - Krytyczne zrecenzowanie artykułu, F - Zatwierdzenie ostatecznej wersji artykułu

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**Abstract (in Polish):**

Wprowadzenie: Jednym z globalnych wyzwań związanych z opieką zdrowotną jest pogłębiający się niedobór kadry pielęgniarskiej oraz wzrost średniego wieku w tej grupie zawodowej. Zjawiska te doprowadzają do zwiększenia obciążenia i stresu w pracy, a także sprzyjają wypaleniu zawodowemu, czego konsekwencją może być odejście z pracy. Zapobieganie i łagodzenie objawów wypalenia zawodowego może prowadzić do wyższej satysfakcji pielęgniarek z wykonywanej pracy, a tym samym mieć pozytywny wpływ na pozostanie w zawodzie. Celem przeprowadzonego przeglądu systematycznego dwóch baz danych (Embase and PubMed) była weryfikacja, czy pozytywne interwencje psychologiczne zapobiegają lub łagodzą skutki wypalenia zawodowego pielęgniarek/pielęgniarzy.

Przegląd literatury: Uzyskane wyniki nie były jednoznaczne. Jakkolwiek, joga prowadzi do poprawy w dwóch wymiarach wypalenia (depersonalizacji i wyczerpania emocjonalnego), to nie ma wystarczających dowodów naukowych dotyczących pozytywnych interwencji psychologicznych, jako obiecującego podejścia do zapobiegania lub łagodzenia skutków wypalenia u pielęgniarek/pielęgniarzy.

Wnioski: Do postawienia bardziej jednoznacznych wniosków potrzebne są dalsze badania.

**Abstract (in English):**

Introduction: The nursing shortage and ageing workforce are global challenges which can cause higher burdens and work stress. They lead to professional burnout which may result in leaving a job. Prevention and amelioration of professional burnout could lead to higher nurses' satisfaction with their work, and therefore may have a positive impact on remaining in the profession.

Aim of the systematic review: Verification whether positive psychology interventions prevent or ameliorate the burnout in nurses through the systematic review of two databases (Embase and PubMed).

Review of literature: The results were mixed. However, yoga lead to improvements in two dimensions of burnout (depersonalization and emotional exhaustion).

Conclusions: There are insufficient studies on positive psychology interventions as a promising approach to prevent or ameliorate the impact of burnout in nurses thus further research is required.

**Keywords (in Polish):** pielęgniarka, pielęgniarz, psychologia pozytywna, wypalenie zawodowe.

**Keywords (in English):** nurse, positive psychology, burnout.

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**Short title**

Psychologia pozytywna a wypalenie zawodowe pielęgniarek

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**Introduction**

In 2019 burn-out was included in the International Classification of Diseases (ICD-11) [1]. Many nurses are prone to have or develop professional burnout [2] and its subsequent impact upon their health and wellbeing could influence them in taking a decision to leave their job [3,4]. In reference to above mentioned facts it is crucial to find an effective way which may reduce work-related stress, and consequently decrease the risk of professional burnout [5].

Gyllensten and Palmer state that coaching could be used to reduce workplace stress [6]. In two surveys undertaken by Palmer and Whybrow [7], 57% of coaches and 63% of coaching psychologists reported that they used the positive psychology approach in their practice.

Positive psychology is an approach, which was introduced by Seligman and Csikszentmihalyi, aimed at positive emotions, however, it does not mean that negative emotions are ignored [8].

Positive psychology interventions are frequently introduced when it comes to stress reduction [9,10,11], building resilience [12], enhancing well-being [11,13], reducing burnout [14] and improving health [15]. There are many positive psychology interventions, for instance training in: self-compassion [16], mindfulness [10,17], gratitude [18] as well as positive psychology coaching [19].

According to the latest International Classification of Diseases burn-out was introduced as an occupational phenomenon caused by chronic stress in a workplace which one does not manage properly, and which leads to nervous exhaustion, increasing distance to one's work performance (i.e. cynicism or negativism) as well as a reduction in professional efficacy [1]. It is highlighted that this phenomenon should be used only in the context of the particular job [1]. This idea is in line with the newest burnout definition proposed by Maslach and Leiter [20].

Gratitude definition includes: recognizing other people behaviours which are kind and helpful and then, responding with thankfulness, appreciating the obtained results [21]. It is an ability to recognise the value of positive events in one's life [21].

In accordance with a definition of self-compassion provided by Neff [22] there are three components of this phenomenon, all of those have a two opposing poles. These dimensions are related to behaviours which can be more or less compassionate: 1) "self-kindness versus self judgement", 2) "a sense of common humanity versus isolation" and 3) "mindfulness versus over-identification" [22, p. 265]. The first component is related to one's reactions in time when one faces some difficulties, hence if one is kind and supportive of themselves or not [22]. The second ingredient is associated with ability to recognise that one is not alone in his or her suffering and to understand that failures and mistakes are part of the human life, and they are common experiences [22]. The last one is connected to ability to maintain a balance between difficult experiences and other things which occur in one's life, in terms of not generalizing a single event to the whole experience [22].

Yoga includes special postures, elements of meditation and breathing exercises (compare: [23]). Yoga practice is an approach which might have beneficial effects on psychological well-being regarding gratitude and meaning of life [24]. Simard and Henry showed that this approach brings positive outcomes regarding general health, stress level and stress [23].

Green and Palmer proposed a definition of positive psychology coaching which highlights its evidence-based character, being underpinned by positive psychology theories and studies, aimed at facilitating and improving resilience, accomplishment as well as well-being [19]. The definition of this concept is still a subject of consideration among researchers [19,25].

Lee et al. conducted a research in male firefighters which verified whether there is a correlation between gratitude and burnout [18]. They stated that gratitude is associated inversely with burnout, and in addition it also plays a protective role in this context [18]. In turn, Lanham and associates verified whether there is a link between gratitude and burnout among professionals working in mental health area [26]. The results of this study are mixed. On the one hand gratitude was a good predictor in case of achievements, but after they introduced hope as a controlling variable this relation disappeared [26].

Latest research demonstrates that a self-compassion training is beneficial in certain cases. Delaney investigated the potential benefits of mindful self-compassion training for nurses [12]. Participants took part in an 8-week training programme. Immediately after the intervention, the improvement in self-compassion was found to be associated with a lower risk of burnout [12]. Yet, it was a pilot study, so further researches are required to confirm this correlation.

Guzmán and associates conducted another study which shows that positive psychology coaching may lead to improvement in quality of relationships as well as hope and happiness enhancement [27].

However, there is still a lack of research in the field of impact of positive psychology interventions in the context of burnout prevention among nurses.

### **Aim of the systematic review**

Verification whether positive psychology interventions may prevent or ameliorate the impact of burnout on nurses.

### **Review methods**

The review question was: Do positive psychology interventions prevent or ameliorate the impact of burnout among nurses. Two electronic databases, *Embase* and *PubMed*, were searched in according to answer this query (subscription of the Jagiellonian University Medical College and the Maastricht University). These searches were conducted by two independent researchers. In order to develop search strategy keywords, *Medical Subjects Headings* and *Emtree* thesaurus were combined with Boole's logical operators. First step was the assessment of titles and abstracts, and then full texts were assessed. As for inclusion criteria, there were as follows: 1) nurses as participants of a study, 2) a positive psychology approach as an intervention, 3) available information regarding its influence on the risk of burnout, 4) a randomized controlled trial as a study type. Studies which were limited to English-language publications. After all relevant studies have been chosen they were presented in a following manner: research design, intervention and results.

### **Results of the review**

Preliminary searches were presented in Table 1 and Table 2.

**Table 1. Preliminary searches in the Embase**

**Tabela 1. Wstępne wyniki wyszukiwania w bazie Embase**

Number	Phrase	Number of results
#1	,burnout'/exp	16 637
#2	,nurse'/exp	172 367
#3	,optimism'/exp	4 236
#4	,mindfulness'/exp	7 150
#5	,burn-out':ab,ti OR ,burn-out syndrome':ab,ti OR ,burnout syndrome':ab,ti OR ,burnout, psychological':ab,ti OR ,psychological burn-out':ab,ti OR ,psychological burnout':ab,ti	2 318
#6	nurs*:ab,ti OR ,anaesthetist nurse assistant':ab,ti OR ,anesthetist nurse assistant':ab,ti OR ,community health nurse':ab,ti OR ,community health nurses':ab,ti OR ,nurse, community health':ab,ti OR nurses:ab,ti OR ,nurses, community health':ab,ti OR ,nurses, public health':ab,ti OR ,nursing assistance':ab,ti OR ,public health nurse':ab,ti OR ,public health nurses':ab,ti	515 630
#7	,positive psychology':ab,ti OR ,self compassion':ab,ti OR gratitude:ab,ti OR optimism:ab,ti OR ,optimistic attitude':ab,ti OR ,optimistic orientation':ab,ti OR strengths:ab,ti OR mindfulness:ab,ti OR coaching:ab,ti OR ,self-determination':ab,ti OR values:ab,ti	1 442 058
#8	#1 OR #5	17 326
#9	#2 OR #6	561 498
#10	#3 OR #4 OR #7	1 444 312
#11	#8 AND #9 AND #10	361
#12	#11 AND (,randomized controlled trial'/de OR ,randomized controlled trial (topic)'/de)	22

Source material: results of own research

Źródło: opracowanie na podstawie własnych badań

**Table 2. Preliminary searches in the PubMed**

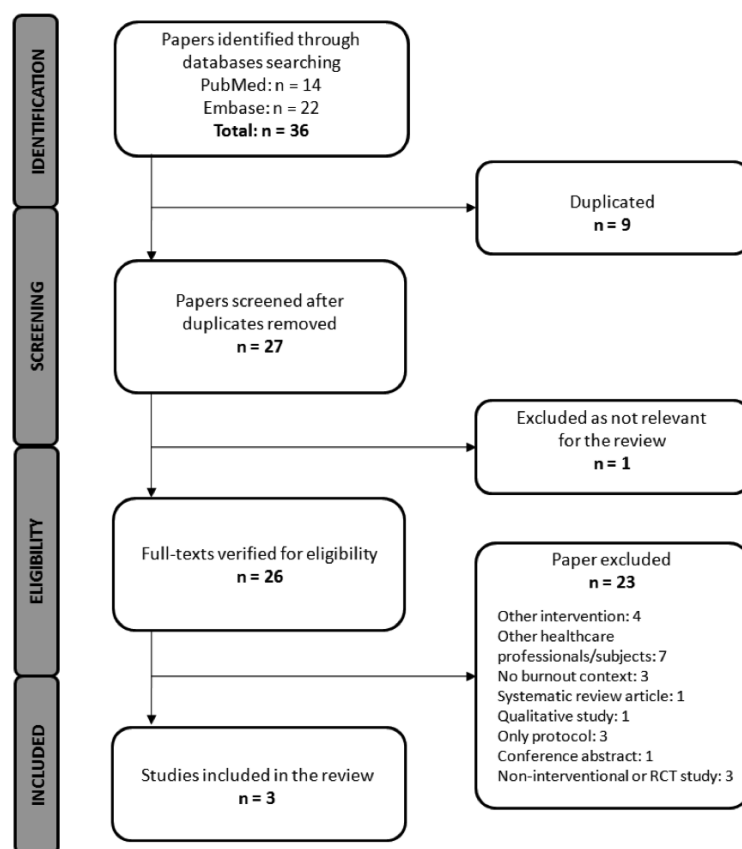
**Tabela 2. Wyniki wstępnych wyszukiwań w bazie PubMed**

Number	Phrase	Number of results
#1	„Burnout, Psychological”[Mesh] AND „Burnout, Professional”[Mesh]	10 933
#2	„Nurses”[Mesh]	86 034
#3	„Optimism”[Mesh]	479
#4	„Mindfulness”[Mesh]	2 678
#5	„burn-out” OR „burn-out syndrome” OR „burnout syndrome” OR „burnout, psychological” OR „psychological burn-out” OR „psychological burnout”	1 726
#6	nurs* OR „anaesthetist nurse assistant” OR „anesthetist nurse assistant” OR „community health nurse” OR „community health nurses” OR „nurse, community health” OR nurses OR „nurses, community health” OR „nurses, public health” OR „nursing assistance” OR „public health nurse” OR „public health nurses”	931 816
#7	„positive psychology” OR „self-compassion” OR gratitude OR optimism OR „optimistic attitude” OR „optimistic orientation” OR strengths OR mindfulness OR coaching or „self-determination” or values	1 265 498
#8	#1 OR #5	11 670
#9	#2 OR #6	931 816
#10	#3 OR #4 OR #7	1 265 498
#11	#8 AND #9 AND #10	307
#12	#8 AND #9 AND #10 AND (Randomized Controlled Trial[ptyp] AND „humans”[MeSH Terms] AND English[lang])	14

Source material: results of own research

Źródło: opracowanie na podstawie własnych badań

At the beginning (identification stage) 36 papers were found (22 articles in Embase and 14 articles in PubMed). During the screening process, 9 papers were found to be duplicated. These were excluded and consequently 27 papers remained. One paper was excluded as not relevant in this systematic review. Then, compliance with established criteria was verified. In total, 23 articles were excluded (details are specified on Fig. 1), and 3 papers were included in the systematic review. Details of the search strategy of this systematic review was presented in Figure 1.



Articles which were included in the systematic review are presented in Table 3 and 4. Interventions included: brief mindfulness-based stress management program, yoga and resilience training. In all of the research papers, the *Maslach Burnout Inventory* was used to assess burnout. As for results, they were mixed. In research conducted by Watanabe and associates [28] and study performed by Mealer and colleagues [29] no significant differences were found. Consequently, there is a lack of evidence regarding efficacy of brief mindfulness-based stress management program in context of mental state of nurses. Authors stated that it might be caused by too short intervention time [28]. Second research verified efficacy of resilience training among intensive care unit nurses. The intervention consisted of (1) Two-Day Educational Workshop, (2) Written Exposure Therapy, (3) Mindfulness-Based Stress Reduction, (4) Physical exercises and (5) Event-Triggered Counseling Sessions [29]. Authors suggested that possible reasons for lack of differences include the small sample size and that the intervention may have been overly complex [29]. Alexander and associates observed that yoga had positive outcomes [30]. The significant differences were found in two out of three *Maslach Burnout Inventory* subscales: emotional exhaustion and depersonalization [30].

**Table 3. Details about papers which were included in the systematic review**  
**Tabela 3. Szczegóły dotyczące artykułów włączonych do przeglądu systematycznego**

	Year	Authors	Title	Journal
1	2019	Watanabe, N, Horikoshi, M., Shinmei, I., Oe, Y., Narisawa, T., Kumachi, M., Matsouka, Y., Hamazaki, K., Furukaw, T.A.	Brief mindfulness-based stress management program for a better mental state in working populations-Happy Nurse Project: A randomized controlled trial	Journal of Affective Disorders
2	2015	Alexander, G.K., Rollins, K., Walker, G., Wong, L., Pennings, J.	Yoga for Self-Care and Burnout Prevention Among Nurses	Workplace Health & Safety
3	2014	Mealer, M., Conrad, D., Evans, J., Jooste, K., Solyntjes, J., Rothbaum, B., Moss, M.	Feasibility and acceptability of a resilience training program for intensive care unit nurses	American Journal of Critical Care

Source material: results of own research  
 Źródło: opracowanie na podstawie własnych badań

### Conclusions

This systematic review was aimed at verifying of the efficacy of positive psychology interventions in professional burnout prevention among nurses. In order to achieve this goal the systematic review of two databases (PubMed and Embase) was conducted. In the identification stage 36 papers were found, but after screening for duplicates and articles which are not relevant in this context, 26 papers remained. After checking compliance with established criteria, only three papers were included in the systematic review.

As positive psychology techniques are relatively easy to introduce in everyday practice it is worth checking their efficacy. The results of the systematic review show the limited number of studies and suggest that the efficacy of positive psychology interventions requires further research. In the three papers included in the systematic review, authors highlighted that there is no standardized intervention (consequently comparisons between different studies are difficult). Also the positive psychology intervention or interventions were only part of a more complex programme. Therefore, it may be more efficacious to assess one type of technique or intervention at a time. Secondly, it is worth to considering research which would be based on previously calculated sample size, rigorous and transparent intervention methodology (including assessment of short- and long-term effects). Medium to long-term follow-up data is important to verify the effectiveness of the intervention. Finally, broadening the search by using a psychological database such as *psycINFO* may have found additional papers in this area.

Our results based only on three studies found in two biomedical databases (*PubMed* and *Embase*). Broadening the search by using psychological databases, may have found additional papers in this subject. Nevertheless, the insight is valuable in setting the direction for further research in this area.

### Ethical approval

Ethical approval was not required for this paper.

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