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STRESS AND BURNOUT SYNDROME AMONG HEALTH CARE PERSONNEL DURING THE COVID-19 PANDEMIC

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Abstract

Introduction: During the COVID-19 pandemic, workload and physical and mental exhaustion became more extensive, especially among health care workers (HCWs).

Material and Methods: This study involved 50 people aged 25 to 64, of whom 37 were women and 13 men. These HCWs were physiotherapists (48%), nurses (30%) and physicians (22%), all professionally active during the COVID-19 pandemic. The research was conducted between June and October 2020, using an on-line survey. The COPE, LBQ and ISI questionnaires were used.

Results: Analysis of occupational burnout (LBQ) and its various aspects showed that the Deterioration of relations with clients (patients) was significantly higher among those with up to five years and between 15 and 24 years of experience than in the group with 25–35 years of experience. Sense of professional ineffectiveness and Disappointment were significantly higher ($p < 0.05$) in the group with the most work experience. 30% of the medical workers surveyed obtained a result indicating subliminal insomnia (ISI) and 28% – clinical insomnia. Comparison of COPE and LBQ scores showed that Psycho-physical exhaustion (LBQ) correlated negatively with Religious coping ($p = 0.032$). Deterioration of relations with clients (patients) (LBQ) correlated negatively with such strategies (COPE) as Active coping ($p = 0.048$), Planning ($p=0.006$), Positive reinterpretation and growth ($p < 0.001$). Sense of professional ineffectiveness (LBQ) correlated negatively with Acceptance strategies ($p = 0.017$) and Behavioral disengagement ($p = 0.021$). Disappointment correlated positively with the Positive reinterpretation and growth strategy ($p = 0.024$).

Conclusions: The COVID-19 pandemic had an impact on the development of burnout amongst the HCWs surveyed, especially that related to psychophysical exhaustion, a sense of lack of effectiveness and a sense of disappointment. The sleep cycle was affected. Cognitive-behavioral oriented workshops are recommended when facing burnout.

Key words: COVID-19, SARS-CoV-2, burnout syndrome, mental health, health care workers

Introduction

Work in healthcare is associated with exposure to numerous stressors. Specifically during the COVID-19 pandemic, workload, physical and mental exhaustion became more extensive. The emergence of the new coronavirus and the related COVID-19 disease is currently the most important international public health problem. The coronavirus pandemic presented an unprepared healthcare system with countless challenges. Healthcare workers (HCWs) dealt with unprecedented acute stress in the workplace, which in some cases was accompanied by high levels of burnout. In the conditions of the pandemic, HCWs, including doctors, nurses, paramedics and physiotherapists, faced risks to their own health and life, where they were primarily exposed to intense and long-lasting stress, as well as mental exhaustion. Burnout syndrome is defined as a complex of psychological symptoms appearing in an employee because he or she experiences chronic stress as a consequence of an imbalance between personal resources and burdens. Burnout can lead to symptoms of depression, anxiety, post-traumatic stress disorder, alcohol abuse, insomnia and even suicidal thoughts [1].

HCWs belong to the occupational group who, due to the stress of their work, the significant risk of COVID-19 infection and the need to help patients, are at a higher risk. Burnout has also been proven to decrease the quality of care or services provided by staff.

Coping with stress

An integral part of the definition of stress is the ability to cope with it. Lazarus and Folkman have extended this concept by describing it as “constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person” [2:184]. The function of these efforts is to change or minimize the negative effects of the stressful situation. These strategies are specific for each individual, and their configuration is called a coping style [3]. They can be divided into modalities (as behavioral and cognitive efforts) and functional criteria, which focus on solving a problem or regulating emotions [4]. Carver et al. distinguished several categories of coping with stress. They assigned active coping and planning to the category of problem-focused strategies, seeking emotional support to strategies that focus on emotions, and focusing on alternative activities to avoidance strategies [5]. The former assume a change in the stressful situation by changing the environment or changing the meaning assigned to the individual’s relationship with the environment. Individuals engaging in this type of strategy will focus on solving the problem. Individuals using strategies that focus on the regulation of emotions will try to minimize the psychological tension resulting from stressors [6]. According to this theory, choosing coping strategies and applying them at the wrong stage can be ineffective or harmful. The most effective is a balanced, flexible way of coping [7]. If these strategies are maladaptive or ineffective, individual resources can be exhausted.

Burnout

Burnout is the body’s response to chronic work-related stress. The mechanism underlying burnout is a combination of personality, cognitive and environmental factors, and sometimes also the quality of the work a person performs (e.g. boring, discouraging work or difficult, stressful work). The consequences of burnout are emotional problems, lower work efficiency, less commitment and reduced motivation to act. In terms of the caring professions, burnout is one of the greatest challenges due to the possible negative effects on the physical and mental health of patients [8]. There are many definitions of burnout in the modern psychological literature. European Forum of Medical Associations (EFMA) and the World Health Organization (WHO) define burnout as a syndrome of cognitive, physical and emotional energy exhaustion, which is also characterized by a decline in professional competence and performance. Italian researcher Santinello added

the aspect of disappointment to the types of burnout. This author defines disappointment as a realization of the ineffectiveness of a task. People with idealistic tendencies who consciously look for meaning at work manifest this feature to a high degree [9]. Maslach, in turn, describes burnout in three dimensions, which are manifested in functional disorders. Firstly, there is Emotional exhaustion, or a feeling of emptiness, depletion of strength and a lack of energy. Secondly, there is Depersonalization, or a cynical view of other people, lower sensitivity towards others, callousness, a lack of interest and concern towards others, a negative attitude and lack of willingness to cooperate. The other dimension is Loss of self-efficacy, or lowering the assessment of one's own achievements, a sense of lack of achievements and effectiveness of one's own actions, and a sense of lack of competence [10].

The aim of this study was to assess the psychophysical condition and occupational burnout of Polish HCWs during the COVID-19 pandemic.

Material and Methods

The study covered 50 people, including 37 (74%) women and 13 (26%) men. These HCWs included 24 physiotherapists (48%), 15 nurses (30%) and 11 physicians (22%), professionally active during the COVID-19 pandemic. The age of the respondents ranged from 25 to 64 years (Tab. 1).

Table 1. Characteristics of the group examined

| Parameter | | Total (N = 50) |
|----------------|------------------|----------------|
| Sex | Female | 37 (74%) |
| | Male | 13 (26%) |
| Age | 25–34 yo | 22 (44%) |
| | 35–44 yo | 9 (18%) |
| | 45–54 yo | 17 (34%) |
| | 55–64 yo | 2 (4%) |
| Marital status | Married | 26 (52%) |
| | Single | 17 (34%) |
| | Divorced | 1 (2%) |
| | In a partnership | 6 (12%) |
| Profession | Physiotherapist | 24 (48%) |
| | Physician | 11 (22%) |
| | Nurse | 15 (30%) |
| Seniority | 0–5 years | 19 (38%) |
| | 6–14 years | 8 (16%) |
| | 15–24 years | 10 (20%) |
| | 25–35 years | 13 (26%) |

The study was conducted between June and October 2020, using an on-line survey.

The COPE Questionnaire – Inventory for Measuring Coping with Stress by Carver et al. [5] was used to evaluate 15 response strategies to stressful situations. The following strategies were assessed: Active coping, Planning, Use of instrumental social support, Use of emotional social support, Suppression of competing activities, Religious coping, Positive reinterpretation and Growth, Restraint, Acceptance, Focus on and venting of emotions, Mental disengagement, Behavioral disengagement, Substance use and Humor.

The LBQ (Link Burnout Questionnaire) was used to assess the level of occupational burnout. It allowed four aspects to be assessed: Psychophysical exhaustion (the dimension related to the assessment of one's own psychophysical resources), Deterioration of relations with clients (patients) (the dimension describing the quality of relations with clients), Job ineffectiveness (the dimension relating to the assessment of one's own professional competences) and Disappointment (the dimension of existential expectations) [11]. The Insomnia Severity Index (ISI) was used to assess sleep quality, where 0–10 points means no insomnia, 11–14 points means subliminal insomnia, and a result above 14 points means the occurrence of clinically significant insomnia.

A statistical analysis was performed: the Mann-Whitney test was used to compare the quantitative variables between two groups, while the Kruskal-Wallis test (followed by the Dunn post-hoc test) was used for more than two groups. The relationship between two quantitative variables was assessed using Spearman's correlation coefficient. The significance level for all statistical tests was set to 0.05. R 4.0.5 was used for the computations [12].

All procedures performed as part of studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Results

The analysis of the data obtained with the COPE questionnaire, used to ascertain how the HCWs respond to stress, showed that in this group the most commonly used strategies for coping with stress were Planning (mean = 3.13), Positive reinterpretation and growth (mean = 3.08), Active coping (average = 2.94), Use of instrumental social support (average = 2.85) and Acceptance (average = 2.83). The least frequently used were Substance use (mean = 1.43), Behavioral disengagement (mean = 1.64), Humor (mean = 1.66), Denial (mean = 1.68) and Mental disengagement (mean = 1.88). The analysis of the correlation between the age of the respondents and the strategies of coping with stress showed a significantly

more frequent ($p = 0.018$) occurrence of Positive interpretation and growth in the oldest age group (55–64 years) compared to the youngest group (25–34 years) (Fig. 1). On the other hand, the results of the analysis of the relationship between work experience and the strategies used indicate that in the group with work experience of between 25 and 35 years, Active coping was used significantly more often ($p = 0.003$) than in the groups with work experience of up to five and between 15 and 24 years. In the group with 6–14 years of experience, this strategy was also significantly more often noted than in the group with up to five years of work experience (Fig. 2).

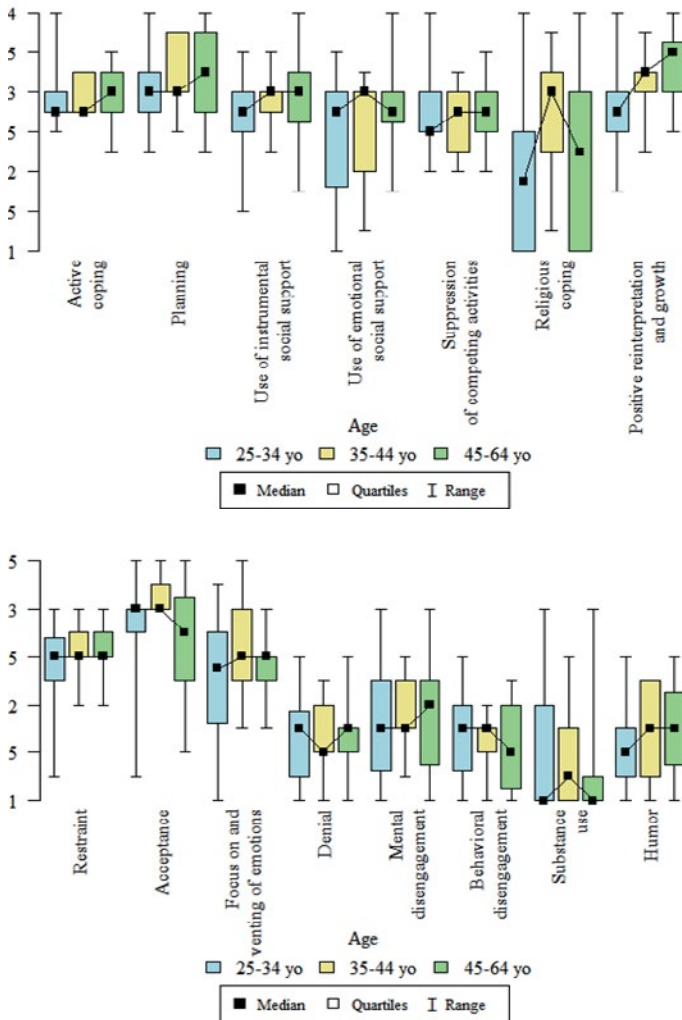


Figure 1. The age of the respondents and the coping strategies used (COPE)

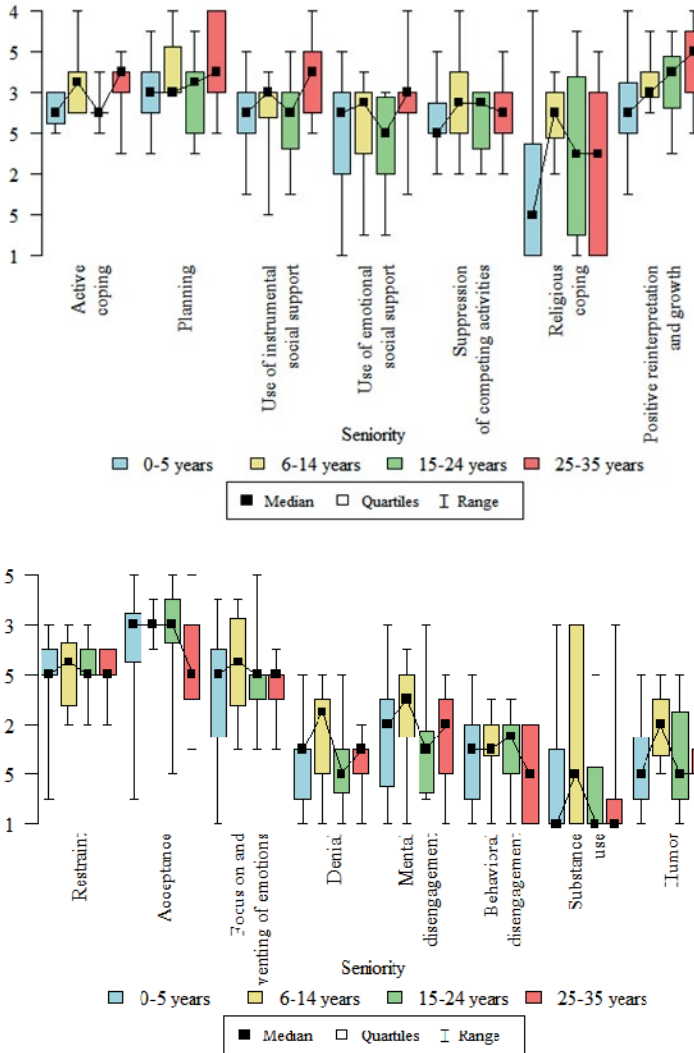


Figure 2. Work experience and the coping strategies used (COPE)

Using the LBQ questionnaire, the level of burnout among the respondents was assessed, detailing aspects of it such as Psychophysical exhaustion, Deterioration of relations with clients (patients), Sense of professional ineffectiveness and Disappointment. Almost half of the HCWs surveyed (44%) had a high level of Sense of professional ineffectiveness, and 42% had a high level of Disappointment. A high level of Lack of commitment to customer relationships was also noted in 22% of respondents. All HCWs who took part showed a moderate level

of Psychophysical exhaustion. None of these persons showed a low level in any of the four aspects of occupational burnout (Tab. 2). The analysis of the correlation between the age of the respondents and the occurrence of burnout did not indicate the existence of such a relationship ($p > 0.05$). Statistically significant correlations ($p < 0.05$) were noted when assessing the relationship between the work experience of the respondents and the degree of occupational burnout (Tab. 3). The level of Disengagement in relation with the client, which is one of the aspects of burnout, was significantly higher in the group with five and 15–24 years of experience than in the group with 25–35 years of experience. Sense of professional ineffectiveness and Disappointment were significantly greater ($p < 0.05$) in the group with the most work experience (25–35 years), compared to people with 6–14 years and 15–24 years of experience. On the other hand, in the group with the least experience (up to five years), these two aspects of burnout were significantly greater than in the group with 15–24 years of experience.

Table 2. The level of burnout divided into the individual aspects of it listed in the LBO questionnaire

| Parameter | Total (N = 50) |
|-------------------------------------|--------------------|
| Psycho-physical exhaustion [points] | mean±SD 21.72±1.23 |
| | median 22 |
| | quartiles 21–22 |
| Relationship deterioration [points] | mean±SD 19.02±1.49 |
| | median 19 |
| | quartiles 18–20 |
| Professional inefficacy [points] | mean±SD 23.22±4.07 |
| | median 23 |
| | quartiles 20.25–26 |
| Disillusion [points] | mean±SD 23.7±4.92 |
| | median 23.5 |
| | quartiles 21–28 |
| Psycho-physical exhaustion [sten] | mean±SD 6.2±0.45 |
| | median 6 |
| | quartiles 6–6 |
| Relationship deterioration [sten] | mean±SD 7.18±0.6 |
| | median 7 |
| | quartiles 7–7 |
| Professional inefficacy [sten] | mean±SD 7.22±1.18 |
| | median 7 |
| | quartiles 6.25–8 |
| Disillusion [sten] | mean±SD 7.1±1.15 |
| | median 7 |
| | quartiles 6–8 |

| Parameter | Total (N = 50) | |
|---|----------------|-----------|
| Psycho-physical exhaustion – interpretation | Low | 0 (0%) |
| | Medium | 50 (100%) |
| | High | 0 (0%) |
| Relationship deterioration – interpretation | Low | 0 (0%) |
| | Medium | 39 (78%) |
| | High | 11 (22%) |
| Professional inefficacy – interpretation | Low | 0 (0%) |
| | Medium | 28 (56%) |
| | High | 22 (44%) |
| Disillusion – interpretation | Low | 0 (0%) |
| | Medium | 29 (58%) |
| | High | 21 (42%) |

Table 3. The relationship between work experience and the degree of individual aspects of burnout (LBQ) among the respondents

| LBQ | | Seniority | | | | P |
|-------------------------------|-----------|------------------------------|------------------------------|--------------------------------|--------------------------------|------------|
| | | 0–5 years – A (N = 19) | 6–14 years – B (N = 8) | 15–24 years – C (N = 10) | 25–35 years – D (N = 13) | |
| Psycho-physical exhaustion | mean±SD | 21.89±1.24 | 21.88±1.13 | 21.5±1.72 | 21.54±0.88 | p = 0.781 |
| | median | 22 | 21.5 | 21.5 | 21 | |
| | quartiles | 21–23 | 21–22.25 | 20.25–22 | 21–22 | |
| Relationship deterioration | mean±SD | 19.32±1.06 | 19±1.69 | 19.7±1.34 | 18.08±1.71 | p = 0.033* |
| | median | 19 | 19 | 20 | 17 | |
| | quartiles | 18.5–20 | 18–20.25 | 19.25–20.75 | 17–19 | |
| Professional inefficacy | mean±SD | 23.89±3.77 | 21.88±4.19 | 19.8±3.22 | 25.69±3.17 | p = 0.003* |
| | median | 23 | 21 | 19.5 | 26 | |
| | quartiles | 21.5–26.5 | 19–25 | 17.25–21.75 | 24–28 | |
| Disillusion | mean±SD | 24.16±4.35 | 22.25±5.01 | 19.8±4.71 | 26.92±3.66 | p = 0.006* |
| | median | 24 | 22.5 | 18.5 | 28 | |
| | quartiles | 21–27 | 19.25–23.5 | 16.25–21.75 | 26–30 | |

p – Kruskal-Wallis test + post-hoc analysis (Dunn test)

* statistically significant (p < 0.05)

Another parameter analyzed in the group of medical workers was the occurrence and severity of insomnia using the ISI questionnaire. The mean ISI score obtained in the study group was 10.14±7.72 points. 30% of the medical workers surveyed obtained a score between 11 and 14 points, which proves the presence of subliminal insomnia. Slightly fewer (28%) obtained a result indicating clinical insomnia, of which 18% were moderate and 10% severe. Less than half (42%) of medical workers scored below 11 points, indicating no problems with insomnia.

The results of the statistical analysis showed no relationship between the occurrence of insomnia and work experience ($p > 0.05$).

Further analysis included the assessment of the correlation between the COPE results and the level of burnout among the respondents (LBQ), broken down by aspects of burnout. As a result of the analyses, it was shown that Psychophysical exhaustion (LBQ) negatively correlates with the frequency of using the Religious coping strategy ($p = 0.032$; $r = -0.305$) – the greater the psychophysical exhaustion, the less often this strategy was used (Fig. 3). The feeling of Lack of commitment to the relationship with the client (patient) (LBQ) correlated negatively with the frequency of using such coping strategies as Active coping ($p = 0.048$; $r = -0.281$), Planning ($p = 0.006$; $r = -0.386$) and Positive reinterpretation and growth ($p < 0.001$; $r = -0.554$) (Fig. 4, 5, 6). Another aspect of burnout – Job ineffectiveness (LBQ), significantly and negatively correlated with the frequency of using the Acceptance strategies ($p = 0.017$; $r = -0.338$) and Behavioral disengagement ($p = 0.021$; $r = -0.326$), where the greater the feeling of ineffectiveness was, the less often these strategies were used (Fig. 7 and 8). Disappointment correlated significantly and positively with the frequency of using the Positive reinterpretation and growth strategy ($p = 0.024$; $r = 0.318$); the greater the Disappointment was, the more frequently the respondents used this strategy (Fig. 9). Disappointment correlated negatively with the frequency of using the Behavioral disengagement strategy ($p = 0.034$; $r = -0.3$); it was observed that the greater the disappointment, the less often this strategy was used (Fig. 10).

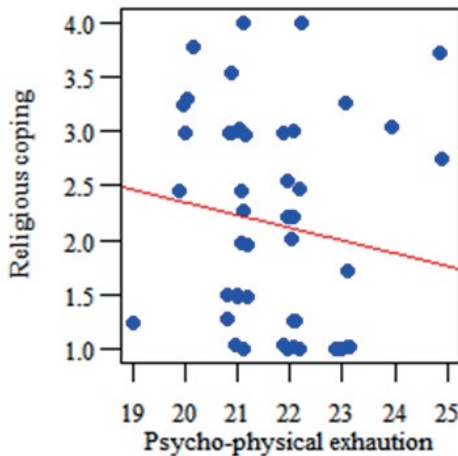


Figure 3. Negative correlation between Psychophysical exhaustion (LBQ) and Religious coping (COPE)

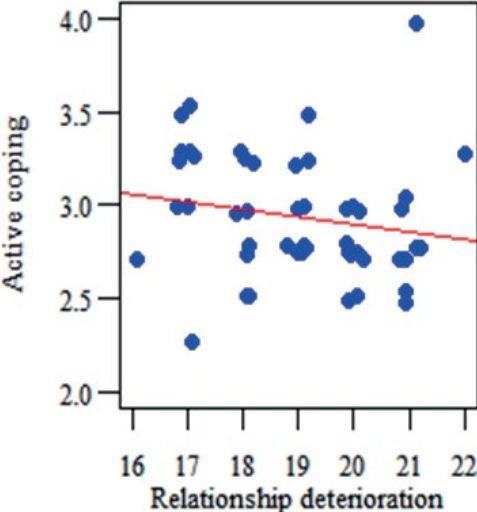


Figure 4. Negative correlation between Relationship deterioration (LBQ) and Active coping (COPE)

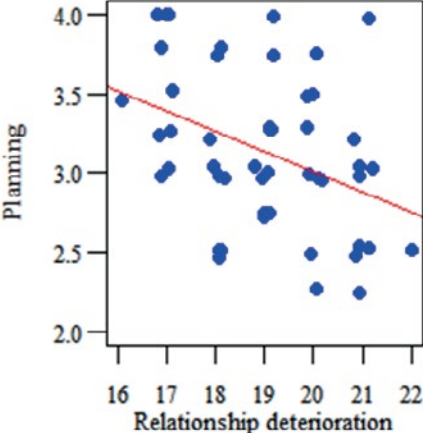


Figure 5. Negative correlation between Relationship deterioration (LBQ) and Planning (COPE)

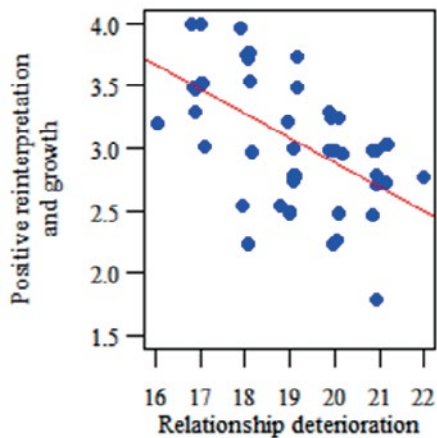


Figure 6. Negative correlation between Relationship deterioration (LBO) and Positive reinterpretation and growth (COPE)

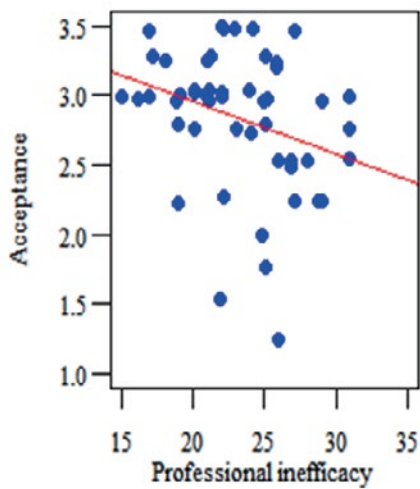


Figure 7. Negative correlation between Professional inefficacy (LBO) and Acceptance strategy (COPE)

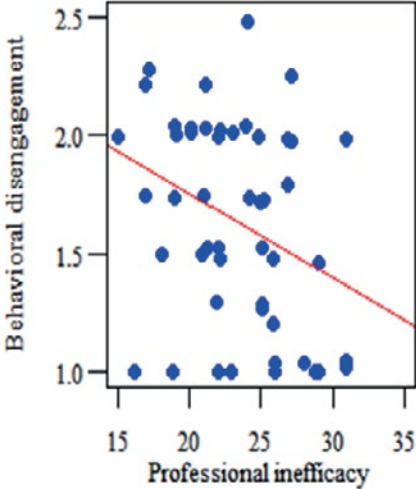


Figure 8. Negative correlation between Professional inefficacy (LBQ) and Behavioral disengagement (COPE) strategy

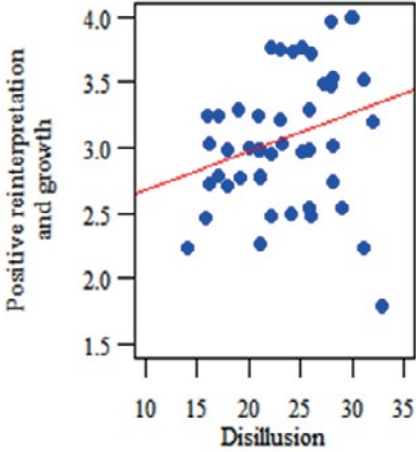


Figure 9. Positive correlation between Disillusion (LBQ) and Positive reinterpretation and growth (COPE)

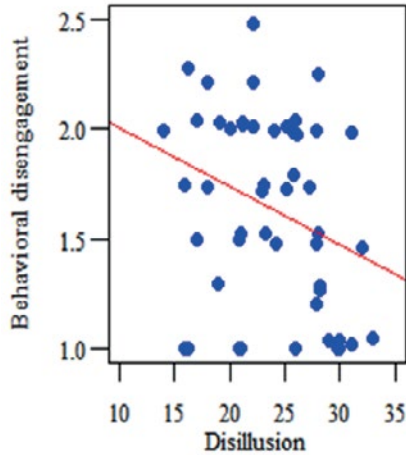


Figure 10. Negative correlation between Disillusion (LBQ) and Behavioral disengagement (COPE)

Discussion

As a consequence of chronic stress, burnout is the most studied phenomenon in the field of occupational psychology. According to data from the WHO, around 300 million workers suffer from various types of health disorders as a result of chronic stress at work [13].

HCWs are a particularly vulnerable group due to the demanding nature of their profession, work environment, the frequency of burnout or psycho-physical overload. This phenomenon is particularly important in terms of the COVID-19 pandemic. In China, during the outbreak of the epidemic, Wu et al. were the first to conduct a study comparing the occurrence of burnout phenomenon among first-line HCWs with health care workers from other departments, using the Maslach Burnout Inventory – medical personnel (MBI) measure. The unexpected results of their research suggest that burnout is much less frequently observed in frontline workers than in workers in other departments [14].

The authors believe that front-line exposure to the virus gives a greater sense of control over the situation, and workplace control is believed to be the leading motivation for commitment that reduces the chances of burnout. A similar opinion is presented by Matsuo et al., who conducted the first cross-sectional study to investigate the incidence of burnout among health workers in Japan. The authors observed an overall burnout incidence of 31.4% [15]. A similar observation is made by Nishimura et al., who emphasize the stress factor and burnout among HCWs, despite a relatively low number of cases of COVID-19 in Japan in comparison to other countries. They point out that workers’ burnout related to the intention to leave the profession would ultimately lead to the chaotic consequence

of a potential collapse of a sustainable healthcare system [16]. In this research, all HCWs displayed an average level of burnout. Less than half of them declared Job ineffectiveness, and a slightly smaller group (42%) were disappointed.

The Japanese authors emphasize that not all experiences have been or will be the same for different healthcare professionals [17]. These will depend on the level of exposure to the virus in hospitals, the culture and the country. Individual differences between persons in the context of stress resistance and emotional sensitivity may differ. The results of Puto et al. also show the problem of increasing stress in people working on the front line during the COVID-19 pandemic. According to these authors, “[...] nurses working with SARS-CoV-2 patients experienced more intense stress than those working with non-infected patients” [18:1]. In turn, Malinowska-Lipień et al. conducted analyzes to assess emotional control among nurses in relation to working conditions and support received during the COVID-19 pandemic. A high level of emotion suppression, especially anxiety, was shown, combined with a higher level of stress, which occurred regardless of the ward [19]. Taking into account the scale of the phenomenon, the provision of psychoeducation and mental health support tools seem to be crucial in the subsequent prevention and alleviation of its effects [20].

Some studies also identify factors related to mental health in HCWs. These are the limited resources of hospitals, the risk of exposure to the virus as an additional occupational hazard, longer working hours, sleep disorders, dilemmas related to duties and the fear of contact with family members, neglect of personal and family needs with increased workload, and lack of sufficient communication and up-to-date information [21].

One means of protection should be promoted by hospitals – a policy that can minimize the risk of negative psychological effects in the HCWs group [22]. Stocchetti et al. confirm that the COVID-19 pandemic has had a negative impact on the mental health and well-being of HCWs, especially those who have had close contact with patients infected with the virus in intensive care units. They observed burnout among health workers, with no differences between groups of nurses and doctors. They suggest that the current situation has influenced the level of distress of all those exposed, exacerbated the symptoms of anxiety and depression, and changed the rhythm of sleep. This study showed that resilience in uncertain, poorly supported situations is not enough. For this reason, awareness of the mental well-being of HCWs and preventive interventions may have a positive effect on slowing down the development of burnout syndrome. Stocchetti et al. also note the presence of insomnia symptoms in 61.5% of the personnel surveyed. “In particular, 17.6% of the participants reported clinically significant symptoms of insomnia: higher rates of moderate or severe insomnia were more frequent in nurses than in physicians (5.7%)” [23:9]. A high incidence of insomnia symptoms was also found in a report by Chinese researchers in a group of frontline nurses fighting COVID-19; about 52% of nurses reported insomnia [23].

Other authors present a similar position on burnout. Schwartz indicates that the United States, the richest country in the world, is the leader in terms of the number of infected people and deaths from COVID-19 [24]. Considering the sample from the population of medical facilities studied by the authors, the reports from the studies mentioned above [14,15] seem to be consistent with the results obtained. Most of the respondents obtained average results on the Psychophysical exhaustion (LBQ), which suggests the presence of certain problems in the field of psychological and physical symptoms of burnout. However, the main problem in the research sample was high scores on the Job ineffectiveness, and Disappointment scales. Job ineffectiveness is a construct defined as a problem with noticing progress in one's own interactions, and consequently, with feeling less satisfaction with the profession. Disappointment is a parameter related to, among others things, difficulties resulting from working in a specific organization or the situation of clients, but also the expectations related to a given profession. According to the authors of the questionnaire, "[Disappointment] takes the form of losing expectations as to professional activity, the importance it has in everyday life and the possibility of realizing the values and ideals that are believed in through the profession" [11:25]. On the other hand, these are specific manifestations of disappointment, such as loss of passion and enthusiasm that permeated the initial expectations. Together with psychophysical exhaustion, they constitute significant factors predisposing to burnout. It should also be taken into account that the research used the LBQ questionnaire, which is to some extent divergent from the MBI one; the latter is present in the studies cited for the purposes of discussion. It is necessary to point out a correlation between the Personal Achievement Scales from MBI and the job ineffectiveness scores, which is consistent with the literature. Moreover, according to the authors of the test, "LBQ uses a more strict criteria than Maslach did" [11:44]. Another important factor is the Disappointment criteria specified by Santinello [11], which are not included in the MBI. It provides a slightly broader look at the determinants of burnout.

A factor that significantly influenced the development of parameters such as Disappointment and the Job ineffectiveness, could be the organizational and logistic problems that the Polish Health Service faced at the time of the outbreak of the pandemic (an insufficient number of beds, ventilators and personnel, as well as extended working hours of HCWs).

The pandemic has exacerbated stressors in the healthcare system, where medical burnout as a response to stress in the workplace is already an epidemic.

Healthcare professionals, including physicians and hospital administrators, should take proactive steps to minimize the complex effects of high burnout on physicians in the COVID-19 pandemic. According to Panagioti et al. and Mealer et al. burnout is also very common, and a meta-analysis has shown that physician burnout is significantly and positively correlated with an increased rate of medical errors [25,26].

In this study, insomnia was assessed using the ISI tool. In 30% of the HCWs examined, the result of the presence of subliminal insomnia was observed, while clinical insomnia of a moderate and severe degree was diagnosed less frequently (28%). Less than half of the HCWs showed no sleep problems. These results seem to be consistent with the analysis of other researchers, where more than half of the HCW respondents presented symptoms of insomnia [27]. This may suggest cultural differences and the universality with which chronic stress affects the sleep cycle. However, differences in methodological contexts such as the test sample and the type of tools used should be taken into account.

The results of the Vizheh research showed that a significant percentage of medical personnel experience mental disorders. In the current context of a pandemic, it is imperative to address the mental well-being of HCWs as well as consider ways to improve their mental health [28].

There are extensive meta-analyses of the effectiveness of therapeutic interventions based on mindfulness techniques and cognitive behavioral therapy [29,30]. These studies are complemented by Strauss et al., who describe the specific protocols of psychological workshops designed to reduce chronic stress in healthcare professionals. The direction of preventive interventions suggested seems also to be confirmed in this study, especially in the significantly negative correlations between the LBQ and COPE results: Job ineffectiveness, and Behavioral Disengagement and Disappointment with Positive Reinterpretation and Growth. In the first and second cases, effective interventions are interventions in the field of cognitive behavioral therapy, compatible with these strategies. In the case of behavioral withdrawal defined as avoidance strategies (not taking part in some activities), techniques such as behavioral activation and relaxation techniques can be used. In the case of a deficit in the strategies adopted for positive reinterpretation and development, cognitive interventions such as cognitive restructuring or Socratic dialogue may seem appropriate [31].

According to the standards of the National Institute for Health and Care Excellence and the American Psychological Association, the cognitive-behavioral approach is dominant in terms of psychosocial and psychotherapeutic interactions [32]. Therefore, it seems that the implementation of psychoeducational workshops derived from this psychotherapeutic paradigm is a logical consequence of the actions that should be taken by entities responsible for the mental well-being of medical personnel.

This study is intended to be exploratory in its nature. The research has its limitations. A correlation between personality traits and stress levels/coping strategies should be established in order to provide additional depth and highlight different variables affecting burnout. For instance, Malinowska and Tokarz present an interesting analysis of burnout in the context of workaholism and introduce their own typology of a classic worker [33]. Such research should

be taken into account as inspiration in further investigations of the subject. Moreover, comparative research into burnout in HCW before COVID should be conducted, in order to have a point of reference if the current results differ from previous ones.

Conclusions

The COVID-19 pandemic crisis had an impact on the development of burnout traits in the group surveyed, especially those related to psychophysical exhaustion, job ineffectiveness, and sense of disappointment. This issue requires further exploration.

Moreover, the results indicate that the sleeping cycle of HCWs was also affected, as more than half of the sample experienced some form of insomnia (30% being subliminal insomnia symptoms, and 28% clinical and severe insomnia symptoms).

Cognitive-behavioral oriented workshops are the approach recommended for providing prophylactic measures when combating burnout amongst HCWs.

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Stres i wypalenie zawodowe wśród pracowników ochrony zdrowia w okresie pandemii COVID-19

Streszczenie

Wprowadzenie: W trakcie trwania pandemii COVID-19 obciążenie pracą oraz fizyczne i psychiczne wyczerpanie były coraz większe, szczególnie wśród pracowników ochrony zdrowia (POZ).

Materiał i metody: W badaniu wzięło udział 50 osób w wieku od 25 do 64 lat – 37 kobiet i 13 mężczyzn. Byli to: fizjoterapeuci (48%), pielęgniarki (30%), lekarze (22%), aktywni zawodowo w czasie pandemii COVID-19. Badanie przeprowadzono w okresie od czerwca do października 2020 r. w formie ankiety on-line. Wykorzystano kwestionariusze COPE, LBQ i ISI.

Wyniki: Analiza wypalenia zawodowego (LBQ) i jego poszczególnych aspektów wykazała, że Brak zaangażowania w relacje z klientem (pacjentem) był istotnie wyższy w grupie ze stażem pracy do 5 lat oraz 15–24 lat niż w grupie ze stażem 25–35 lat. Poczucie braku skuteczności zawodowej i Rozczarowanie były istotnie wyższe ($p < 0,05$) w grupie z najwyższym stażem pracy. 30% ankietowanych pracowników medycznych uzyskało wynik ISI wskazujący na obecność bezsenności podprogowej, a 28% bezsenności klinicznej. Analiza korelacji pomiędzy wynikami COPE a LBQ wykazała ujemną korelację pomiędzy Wyczerpaniem psychofizycznym (LBQ) a Zwrotem ku religii ($p = 0,032$). Brak zaangażowania w relacje z klientem (LBQ) ujemnie korelował z takimi strategiami (COPE) jak: Aktywne radzenie sobie ($p = 0,048$), Planowanie ($p = 0,006$), Pozytywne przewartościowanie i rozwój ($p < 0,001$). Poczucie braku skuteczności zawodowej (LBQ) było ujemnie skorelowane ze strategiami Akceptacji ($p = 0,017$) i Brakiem zaangażowania ($p = 0,021$). Rozczarowanie dodatnio korelowało ze strategią Pozytywne przewartościowanie i rozwój ($p = 0,024$).

Wnioski: Pandemia COVID-19 miała wpływ na rozwój wypalenia zawodowego badanych pracowników ochrony zdrowia, zwłaszcza wypalenia związanego z wyczerpaniem psychofizycznym, poczuciem braku skuteczności i poczuciem rozczarowania. Wpłynęło to na cykl snu. W obliczu wypalenia sugeruje się warsztaty poznawczo-behawioralne.

Słowa kluczowe: COVID-19, SARS-CoV-2, wypalenie zawodowe, zdrowie psychiczne, pracownicy ochrony zdrowia