

OCCUPATIONAL BURNOUT SYNDROME AMONG COMMUNITY PHARMACISTS DURING COVID-19 PANDEMIC

Mariya Ivanova¹, Anna Todorova², Magdalena Pesheva³

Abstract:

Introduction: The community pharmacy is the most accessible medical facility in the current healthcare system. Therefore, the expectations from pharmacists as the most accessible healthcare professionals are constantly rising. However, various studies indicate that pharmacists are subject to very high levels of occupational stress and professional burnout is common.

The COVID-19 pandemic has posed new challenges to the work organisation in pharmacies and demand for an adequate reorganisation. In addition, it forced pharmacists to quickly adapt to the new circumstances and requirements and further increased occupational stress.

Objective: To establish the level of occupational burnout among community pharmacists during COVID-19.

Materials and Methods: An anonymous questionnaire survey was conducted among 127 pharmacists working in community pharmacies in Varna, Bulgaria. The study period was from March 2021 to October 2021. The questionnaire consisted of two parts; the first one was based on the specialised Maslach Burnout Inventory (MBI-HSS) tool, assessing professional burnout in terms of emotional exhaustion, depersonalisation, and personal accomplishment; the second one collected data about the demographic characteristics of the respondents, including their job position, pharmacy type (an independent pharmacy or a pharmacy chain) and information on specific problems during COVID-19.

Results: The identified mean values in the group of respondents were as follows: emotional exhaustion $M=23.39$ ($SD\ 9,298$), depersonalisation $M=12.37$ ($SD\ 6,426$), professional achievements $M=31.25$ ($SD\ 7,531$). The sample mean values that stood out were in the depersonalisation scale $M=12.37$, which is considered a high value. A statistically significant difference was found in the different age groups on the depersonalisation scale ($F=3,957$, $p=0,022$). There was a statistically significant difference between the arithmetic mean values for the age groups 25-40 years ($M=13.75$) and over 55 years ($M=9.86$).

Conclusion: Based on the statistical differences for depersonalisation among pharmacists in different age groups, it can be concluded that young pharmacists do not express empathy while providing pharmaceutical care services.

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Keywords: burnout, pharmacists, community pharmacy, COVID-19

Introduction

Community pharmacies are the most accessible medical facilities, and pharmacists therefore, are the most accessible healthcare professionals in the EU (PGEU, 2012). Hence, the expectations from pharmacists regarding their counselling activities, provision of health information, responsible self-medication, and rational use of medicines are constantly rising (Tsvetkova et al., 2014). During COVID-19, new challenges have been added to their professional responsibilities, further contributing to occupational stress and burnout syndrome.

Burnout or occupational burnout is a concept introduced in 1974. Initially, it was described burnout as a state of demoralisation, disillusionment, and fatigue among specialists working in free clinics (Freudenberger et al., 1980.) Today, burnout is associated with severe emotional, mental, and physical exhaustion, directly related to the work environment, in healthy individuals (Maslach et al., 1981). Three sub-scales are used to identify emotional exhaustion (EE), depersonalisation (DP), and personal accomplishment (PA). Maslach defined these terms while developing the Maslach Burnout Inventory (MBI) (Maslach et al., 1981). High values on the EE scale are related to lack of energy, chronic fatigue, frequent headaches, tension, and sleeplessness (Maslach et al., 1981; Boyko, 1999). High values on the DP scale indicate an insensitive and inhumane attitude towards those dependent on the professional's services (Maslach et al., 1981; Boyko, 1999). Burnout is associated with lower values on the personal accomplishment scale and no satisfaction with the performed activities (Maslach et al., 1981). These scales are also used to determine the degree of burnout among medical professionals. Various studies indicate that pharmacists are subject to very high levels of occupational stress (Sathvik et al., 2021; Durham et al., 2018; Elbeddini et al., 2020). Research in other areas has shown that occupational stress

¹ Department of Organization and Economics of Pharmacy, Faculty of Pharmacy, Medical University of Varna, Bulgaria, M.M.Ivanova@mu-varna.bg

² Department of Organization and Economics of Pharmacy, Faculty of Pharmacy, Medical University of Varna, Bulgaria, anna.todorova@mu-varna.bg

³ Department of Organization and Economics of Pharmacy, Faculty of Pharmacy, Medical University of Varna, Bulgaria, Magdalena.Pesheva@mu-varna.bg

leads to adverse health effects and communication problems at the workplace (Tabur et al., 2022). Professional communication issues reduce efficiency at work (Mehta et al., 2021; Tarpomanova et al., 2021)

Since 2019, due to the COVID-19 pandemic, the healthcare system has been tremendously overwhelmed. Healthcare professionals encountered many challenges in their efforts to fight the pandemic. That placed new demands on healthcare professionals (Visacri et al., 2021). The healthcare system was not prepared for such an overload. Healthcare professionals had to deal with extra working hours, lack of preventive measures to control the spread of the disease, fear, and panic among patients, risk of getting infected and transmitting the disease to others, and forced social isolation (Mehta et al., 2021). In addition, due to changes in the legislation linked to COVID-19, pharmacies had to reorganise their work (FIP, 2020; AMADSE, 2020).

The enforcement of anti-epidemic measures restricted the patients' access to general practitioners and medical specialists, so pharmacists remained the most accessible healthcare professionals. Some of the legislative changes were related to regulating the patients' flow to the pharmacy to prevent the spread of the disease (Health Act, 2020). To provide services to patients amidst the COVID-19 pandemic, Bulgaria focused on the development of electronic healthcare and took steps to introduce the electronic prescription, which came into force on 1st July 2021 and became mandatory for prescriptions covered under the National Health Insurance Fund (Ordinance № 4, 2021).

The role of pharmacists worldwide expanded during the pandemic to meet people's healthcare needs (Sathvik et al., 2021; FIP, 2020). Community pharmacies in many countries started educating patients on adequate protective measures to control the spread of COVID-19, counselled patients with mild symptoms and advised them on the rational use of medicines, provided home delivery of medicinal products, monitored drug safety and fought infodemic (Sathvik et al., 2021; Strand et al., 2020). Furthermore, new responsibilities were assigned, such as identifying suspected COVID-19 cases and referring them to the relevant health services (Hedima et al., 2021; Nguy et al., 2020). Besides, due to the overloaded hospitals and forced social isolation, pharmacists advised patients on the first steps after testing positive for COVID-19 to limit the spread of the disease (FIP 2020).

Various problems have arisen while serving patients and meeting the demand for medicines. The pharmaceutical supply chain has faced serious challenges which complicated pharmacists' jobs (Li et al., 2020).

The need to respond instantly and take appropriate action during a state of emergency is a key factor responsible for pharmacists' occupational burnout.

Objective

The purpose of the study is to establish the level of burnout among community pharmacists during COVID-19.

Methodology

An anonymous questionnaire survey was conducted from March 2021 to October 2021 among pharmacists working in community pharmacies. The questionnaire consisted of two parts: the first part assessed burnout. It was based on the specialised Maslach Burnout Inventory Scale (MBI-HSS-MP) (Maslach et al., 1986), adapted and validated for Bulgaria (Tsenova, 1999); the second part aimed at identifying the problems faced by pharmacists during COVID-19.

The pharmacists working in the community pharmacies having a contract with the NHIF, holding master's degrees in pharmacy, and membership of the Regional Pharmaceutical Chamber, Varna, were selected as the respondents for the study. In March 2021, 301 members of the Regional Pharmaceutical Chamber in Varna met the eligibility criteria.

Statistical methods: ANOVA is used to determine the impact of independent variables (gender, age, and work experience) on dependent variables (DP, PA, EE). The analyses were performed at a statistical significance level of $\alpha=0.05$.

Results

Responses from 127 community pharmacists were collected for the study, which accounted for 42% of the total pharmacists fulfilling the eligibility criteria to be selected for the study. The sample size is considered sufficient to represent the pharmacists in Varna since it exceeds one-third of the total number

of subjects eligible for the study. The demographic characteristics of the sample and the mean values of the three scales: emotional exhaustion, depersonalisation, and personal accomplishment are presented in Table 1.

			EE		DP		PA	
Gender	N	%	M	SD	M	SD	M	SD
Total	127	100%	23.39	9.298	12.73	6.426	31.25	7.531
Female	101	80%	22.70	9.37	12.49	6.57	31.38	7.726
Male	26	20%	26.04	8.683	13.69	5.836	30.73	6.844
Age								
25-40 years	73	58%	27.85	10.474	13.75	6.629	30.30	7.214
41-55 years	27	21%	28.62	9.936	13.19	6.306	34.81	6.723
Over 55 years	27	21%	21.86	10.624	9.86	5.247	31.25	7.868
Work experience								
Less than 5 years	44	34%	24.75	9.376	14.64	6.321	30.3	7.523
5-15 years	30	24%	23.77	7.347	12.7	6.38	29.17	6.481
16-25 years	21	16%	22.48	11.089	10.81	6.638	34.57	5.409
26-35 years	11	9%	25.55	5.803	12.36	4.632	34.18	6.047
More than 35 years	21	17%	19.76	10.775	10.9	6.707	31.25	10.12
Source: Author								

The participants in the study were mainly women (80%); the predominant age group is 25-40 years (58%), with work experience of less than 5 years (34%), followed by those with work experience between 5 and 15 years (24%).

Distinctly, male respondents scored higher on both emotional exhaustion scale (M=26.04) and the Depersonalisation scale (M=13.69) compared to female respondents' mean values on EE (M=22.70) and DP (M=12.49). On the other hand, mean values on PA scale of male respondents were lower (M=30.73) than those of females (M=31.38).

Regarding age groups, the highest values on the EE scale (M=28.62) and the highest level of PA (M=34.81) were found in the age group of 41-55 years.

A statistically significant difference was found among the different age groups on the depersonalisation scale ($p=0.022$; $p<0.05$). The effect size $\eta=0.24$, calculated using the ETA coefficient, was medium according to Cohen's interpretation (Cohen, 1988). The Games-Howell post-hoc test indicated a statistically significant difference between the arithmetic mean values for the age group 25-40 years (M=13.75) and over 55 years (M=9.86), and no statistically significant difference was found for the age group of 41-55 years (M=80.4723). There was no statistically significant difference between the mean values of the age group 41-55 and the over 55 age group.

The study identifies the challenges faced by the pharmacists in Varna, Bulgaria during the three waves of the COVID-19 pandemic: the first coronavirus wave (March 2020 - June 2020), the second wave (October 2020 - January 2021), and the third wave (February 2021 - May 2021). The results are presented in Table 2.

During the first COVID-19 wave, pharmacists (90.55%) reported stockpiling OTC drugs, food supplements, and personal protective equipment (PPE) because of the panic among the general population, which seriously impacted the supply of medicinal products. Most of the respondents (94.48%) indicated that the shortage of disinfectants and PPEs in community pharmacies was a problem. In addition, 91.33% of respondents considered the shortage of OTC drugs and food supplements for symptomatic treatment and prevention of respiratory problems a challenge during the first wave. More than half of the surveyed pharmacists pointed out a problem with the shortage of medicinal products for the treatment of acute infectious diseases both in the first (56.69%) and the second wave (54.33%), respectively.

Respondents who encountered technical issues with the NHIF electronic prescriptions during the first and the second wave were 62.2% and 67.72%, respectively. According to the results, pharmacists also had serious difficulty in counselling and offering pharmaceutical care during the first wave (92.13%), second wave (57.48%), and the third wave (45.67%).

	First wave		Second wave		Third wave	
	N	%	N	%	N	%
Tendency for stockpiling of OTC, food supplements and personal protective equipment due to panic in the community	115	90.55	43	33.86	20	15.75
Lack of disinfectants and PPEs	120	94.48	14	11.02	7	5.5
Shortage of OTC and food supplements for symptomatic treatment and prevention of respiratory problems	116	91.33	31	24.41	12	9.45
Shortage of medicinal products for the treatment of acute infectious diseases	72	56.69	69	54.33	20	15.75
Technical issues with the NHIF prescriptions during the transition to e-prescribing.	79	62.2	86	67.72	32	25.2
Difficulties providing counselling and pharmaceutical care	117	92.13	73	57.48	58	45.67
I haven't encountered any difficulties	18	14.17	16	12.6	57	44.88

Source: Author

However, during the third wave, no such difficulties were reported by 44.48% of the respondents. (Note: The sum of responses exceeds 100% because respondents have given more than one answer.)

	N	%
Additional time for counselling and informing patients on ways to prevent the spread of the disease	56	44.09
Additional time spent correcting wrong self-medication regimens and prevention practices	57	44.88
Working with anxious patients who were in a panic mode	89	70.07
Consulting patients who presented with symptoms	56	44.09

Source: Author

70.07% of the pharmacists reported difficulties in counselling patients with anxiety due to panic, while according to the rest of the respondents, it was associated with the need for additional time for counselling to correct self-medication regimen (44.88%) and educating patients about preventive measures (44.09%), and difficulties in dispensing prescription medicines due to the limited access to healthcare professionals.

Discussion

The COVID-19 pandemic posed new challenges to the healthcare professionals, such as long working hours, the constant encounters with patients' fear and anxiety, the risk to their health, and risk of spreading the disease and endangering the health of others. All of these have contributed to the development of burnout (Mehta et al., 2021). Numerous studies have identified an increased risk of occupational burnout among healthcare professionals during the COVID-19 pandemic (Durham et al., 2018). The findings of the study confirm the same.

The study found higher levels of emotional exhaustion and depersonalisation and lower levels of personal achievement among male respondents. It shows that males are more affected by professional burnout than females, although no statistically significant difference has been found across the genders on EE ($p=0,103 > 0.05$), DP ($p=0,395 > 0.05$), PA ($p=0,697 > 0.05$).

The study revealed that pharmacists in the age group of 41-55 years are most satisfied with their job since they have reported the highest personal accomplishment ($M=34.81$). On the other hand, they demonstrated a high level of emotional exhaustion ($M=28.62$), an indicator of exhaustion and fatigue related to the respective profession.

High levels of EE are related to an increased risk of developing psychosomatic illnesses like gastritis, insomnia, depression, high blood pressure, and diabetes (Durham et al., 2018). Deteriorating relationships at work are common among the respondents with higher scores on EE (Freudenberger et al., 1980; Boyko, 1999). The low level of emotional exhaustion in the age group over 55 years ($M=21.86$) signify apathy and indifference towards their duties and responsibilities.

Higher mean values for depersonalisation as well as a statistically significant difference ($p=0,022 < 0.05$) between the age groups 25-40 years ($M=13.75$) and those over 55 years ($M=9.86$). Depersonalisation is associated with aggressive behaviour, alienation, and unfriendly attitudes towards

patients. All these harm the relationship between patients and health professionals. High depersonalisation scores indicate a decline in the quality of pharmaceutical care (Maslach et al., 2001; Ivanova et al., 2020). In line with the results, it can be concluded that young pharmacists below 40 years are more likely to neglect patients' needs and have low empathy towards them. Most of the respondents in the study have less than 5 years of work experience and belong to the same group; therefore, their depersonalisation score is also very high ($M=14.64$). It can be assumed that the lack of experience is a factor in the high level of depersonalisation. The pharmacists in that age group might not have yet developed efficient stress coping strategies, and their communicative skills might not be good enough.

A pre-COVID-19 study among pharmacists from the same area showed lower mean values for EE ($M=21.94$) and DP ($M=10.20$) and higher values for PA ($M=35$) (Ivanova et al., 2020). After comparing the results of both the studies study ($M= 23.39$ for EE, $M=12.73$ for DP, and $M=31.25$ for PA), it is evident that during the coronavirus pandemic, pharmacists had higher levels of emotional exhaustion and depersonalisation and they felt dissatisfied with their personal accomplishments. Therefore, the study indicates that the COVID-19 pandemic is a key factor in increasing occupational burnout among pharmacists. Further, the study results correspond with the results of the studies among pharmacists, reporting higher levels of Burnout during COVID-19 (Johnston et al., 2021; Durham et al., 2018).

An Australian study shows $M=28.5$ for EE, $M=7.98$ for DP, and $M=36.6$ for PA (Johnston et al., 2021). Values for EE and PA are considerably higher than the scores among pharmacists working in Varna, whereas DP values of Bulgarian pharmacists are higher compared to Australians. Additionally, the study statistically prove that males have higher scores for depersonalisation (Johnston et al., 2021).

COVID-19 overwhelmed pharmacists with pharmaceutical care services like optimising medication plans, teleconsultation, addressing the shortages of medicinal products, COVID-19 testing, and administering vaccination (Sathvik et al., 2021). However, in Bulgaria, the additional administrative duties have shifted the focus away from pharmaceutical care (Pesheva et al., 2021).

Other studies monitoring community pharmacists' work during the COVID-19 pandemic have reported many difficulties related to the supply of medicines, the provision of health services, etc., that contributed to raising their level of occupational stress (Sathvik et al., 2021).

The healthcare system in Bulgaria was not prepared for the heavy workload during COVID-19, which affected pharmacists as healthcare professionals. Difficulties in the supply of medicinal products complicated the work of pharmacists and all healthcare professionals. Moreover, a sudden transition to e-health services posed a serious challenge for the healthcare system. The introduction of e-prescribing as part of this process caused serious technical issues when filling prescriptions. This transformation of the healthcare system of Bulgaria is responsible for increasing stress levels among healthcare professionals, especially pharmacists.

The COVID-19 related challenges faced by the pharmacists who participated in this study can be classified into three categories: problems with PPEs, difficulties in providing pharmaceutical care and counselling to patients, and technical problems.

The tendency to stockpile OTC drugs, food supplements, and personal protective equipment out of panic was mainly observed in the first wave, and it gradually declined in the subsequent waves. The challenges in the drug supply process were mainly observed during the first wave. At that time, panic among the population and unpredictably high demand caused problems with the supply of medicinal products (Pesheva et al., 2021). The issues related to the shortage of disinfectants, PPE, OTC drugs, and food supplements have significantly declined during the subsequent waves when the supply of medicines was restored to match the demand in the market. However, during the second wave, a persisting problem in the supply of medicinal products for the treatment of acute infectious diseases was observed. There is no significant differences in the shortage of drugs between the first wave (56.69%) and the second wave (54.33%). In the third wave, however, the percentage of respondents who faced that issue fell to 15.75%.

During the COVID-19 pandemic, there was a dire need to transform the healthcare system into an e-healthcare system, and in response to that e-prescription was introduced (Pesheva et al., 2021). Changes were introduced in the processing of prescriptions covered by the National Health Insurance Fund (Health Act, 2020). It posed serious technical difficulties for the pharmacists in their work with electronic prescriptions, especially during the first (62.2%) and the second waves (67.72%). This technical change significantly increased the level of occupational burnout among pharmacists.

Another challenge for community pharmacists was the assignment of additional duties, including outpatient care, due to limited access to healthcare professionals (Visacri et al., 2021; Pesheva et al., 2021). Most respondents reported difficulties while counselling patients and providing pharmaceutical care due to limited access to healthcare professionals during the first wave 92.13%. The problem was marked relevant for the second and the third wave by 57.48% and 45.67% of the respondents.

Pharmacists have a key role in educating patients on disease prevention. During COVID-19, they were the most accessible healthcare professionals responsible for preventing and ensuring the rational use of medicinal products. While performing their duties, they faced various challenges like serving the anxious patients (70.07%), followed by correcting wrong self-medication regimens and prevention practices (44.88%), working extra time for counselling and educating patients on preventive measures (44.09%) and consulting infected patients (44.09%). Pharmacists working in COVID-19 have been strained by additional duties and extra working hours to educate people on public health prevention measures (Pesheva et al., 2021). A review of pharmacists' job obligations during a state of emergency has shown a shift in pharmaceutical care, from counselling to providing outpatient care, with a focus on hygiene practices to prevent the spread of COVID-19 (Pesheva et al., 2021).

Conclusion

Community pharmacists' job during the COVID-19 pandemic has involved additional obligations and an excessive workload that resulted in high levels of occupational stress. Factors responsible for occupational burnout among the respondents include shortage of medicinal products, disinfectants, and personal protective equipment, counselling difficulties due to anxiety and panic in the general public, the need to correct wrong self-medication regimens, and prevent drug-related issues.

The study has demonstrated that young pharmacists were the most vulnerable and prone to occupational burnout. However, this can be prevented by providing training on coping strategies for effective stress management.

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