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Research Article

Pharmacists' burnout and motivation for pharmaceutical care in chronically ill patients – a pilot study for the north-eastern region of Bulgaria

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Abstract

Medical professionals are the most susceptible to professional burnout. An anonymous survey of master pharmacists was conducted to assess burnout with the MBI-HSS-MP tool and analyse the challenges of working in community pharmacies.

Burnout affected 53% of the 127 pharmacists surveyed. Factors influencing the scales forming burnout emotional exhaustion (EE) depersonalisation (DP), and personal accomplishment (PA) were: administrative difficulties in servicing the prescriptions of chronically ill patients: affected 57% of respondents and influenced EE ($p = 0.036$); lack of precise instructions at work (38% of respondents, influenced DP, $p = 0.007$) and (EE, $p = 0.000$); lack of prior information about innovations 38% (EE $p = 0.002$). Lack of time to carry out pharmaceutical care (PhC) influenced EE ($p = 0.019$) and DP ($p = 0.006$) and DP was associated with lower empathy for patients, Lack of perceived professional satisfaction (PA; $p = 0.042$) was increased.

The increased administrative duties shifted the focus away from PhC and decreased pharmacists' motivation.

Keywords

administrative workload, occupational stress, pharmaceutical care

Introduction

Burnout is described as an emotional, physical, and mental exhaustion observed in healthy people directly linked to working conditions (Maslach et al. 1996). A standard instrument for assessing burnout among medical professionals is The Maslach Burnout Inventory - Human Services Survey (MBI-HSS (MP)), according to which burnout is a combination of three components: emotional exhaustion (EE), depersonalisation and dehumanisation (DP) and reduced personal accomplishment (PA) (Maslach et al. 1996). Chronic exposure to stress has been shown to be the major risk factor for the development of occupational burnout (Kumar 2016; Alwhaibi et al. 2022). Healthcare workers are placed under conditions of intense and constant stress due to the nature of their work, which requires continuous communication with patients and taking responsibility for human health (Kumar 2016).

Burnout is associated with chronic fatigue, distancing from the patients served, deteriorated interpersonal relationships, which directly reflects on the health of employees (English 2022). No less significant is the problem of the impact of high levels of occupational burnout on a patient's positive outcomes (RPS 2023). It has been found that medical professionals who are emotionally exhausted are more likely to make mistakes in their work (Gabler 2020).

In 2020 the COVID-19 pandemic forced a rapid change in the working style of many institutions and private entities in order to transition to a digital environment. The critical step towards e-health was made the same year with the implementation of the electronic referral, the electronic prescription, and the design of NHIS. In December 2020, through an amendment of the Ordinance on the Terms and Conditions for Prescribing and Dispensing of Medicinal Products, the terms electronic prescription and qualified electronic signature (QES) were brought into use and 30.04.2021 was set as a deadline for the launch of the system (Pesheva et al. 2022). Bulgaria is in a process of transforming to e-Health. A National Health Information System (NHIS) has been set up and e-prescription has been introduced. The frequent changes in regulatory requirements affecting the operation of pharmacies and the heavy administrative workload of pharmacists are major factors that divert the focus from pharmaceutical care for chronically ill patients and make it more difficult to serve them. The administrative workload is mainly related to technical difficulties in processing prescriptions under the NHIF and the need to review the correctness of the supporting documentation (diseases approved for funding for the given patient, the chronic patient's prescription booklet showing the medicines received and the period for which they were dispensed, and the protocol of approved treatment for certain diseases). Being the final authority in the care of chronically ill patients, pharmacists are responsible for all errors related to the prescription of medicines, and are subject to sanctions in the event of omissions, and medicines dispensed on incorrect prescriptions and errors in documentation are not paid for by the NHIF.

Chronic non-communicable diseases are a major cause of death and disability in populations worldwide. According to the WHO, they are responsible for the deaths of 41 million people a year, accounting for 71% of all deaths (WHO 2023). The way to limit the spread of chronic non-communicable diseases and therefore reduce their burden on societies is to implement a comprehensive interdisciplinary approach to reduce risk factors, diagnose them at an early stage, treat the disease promptly and achieve optimal control (Ayorinde et al. 2013). Pharmacists are the most accessible medical professionals and a valuable resource for the health system (PGEU 2019). With their knowledge and skills they can support prevention, prophylaxis, early detection of disease and promotion of healthy lifestyles (PGEU 2019). For chronically ill patients, pharmacists support treatment by monitoring medication therapy, reducing drug-related problems and adverse drug reactions (Ayorinde et al. 2013). Pharmaceutical care is an essential element in modern pharmacy practice, with an emphasis on monitoring the results of the treatment administered (Strand et al. 2004; Cipolle et al. 2022). The involvement of pharmacists in specialised treatment programs for chronically ill patients leads to optimisation of treatment and cost savings for the healthcare system. To adequately support the patient, the pharmacist must coordinate ongoing treatment with the patient and provide opportunities for pharmaceutical care to evolve over time. Pharmacists are in a unique position to assist patients in the control over their chronic diseases through their competencies, regular communicatiin with them and accessibility (Antonova 2007; Kumar 2016). For the effective delivery of PhC, the pharmacist needs to show empathy and enter into a good communicative relationship with the patient to gain their trust (Kotegawa 2007). Timely involvement of chronically ill patients in education programs and pharmaceutical care reduces the cost of treatment as it improves disease control, lowers the need for hospitalizations and the need to involve other health services (Wang et al. 2022). The implementation of pharmaceutical care in pharmacies in Bulgaria is a complex and difficult process due to a number of constraints for pharmacists mainly related to the lack of funding and regulation mechanisms in place for this highly specialised consultation.

Objective

To examine the impact of occupational burnout on pharmacists' motivation to provide pharmaceutical care to chronically ill patients**.**

Materials and methods

An anonymous survey was conducted among community pharmacists from the area of Varna, Bulgaria. The standardized questionnaire includes demographic characteristics, MBI-HSS-MP, which determines the state of professional burnout through three scales. A high level of professional burnout is observed with elevated scores on the EE and DP scales and decreased scores on the PA scale.

Emotional exhaustion (EE) is defined as emotional fatigue resulting from the work performed. It is characterized by lack of energy, mental strain and exhaustion, and difficulty concentrating**.**

In depersonalisation (DP), the affected person is negatively attuned to their surroundings and falls into a state of alienation, devaluation of values, destruction of ideals, job dissatisfaction. Inner irritability and intolerance towards others is manifested, it is also reflected in interpersonal relationships**.**

Reduced personal achievement (PA - professional achievement) is associated with low self-esteem, lack of confidence and a feeling of incompetence in the professional sphere, of failure and inability to cope with the tasks. The attention of the affected person is focused not on achievements but on personal failures.

The second part of the questionnaire included questions related to demographic characteristics of the respondents and to the specifics of working in a community pharmacy, which included difficulties in handling prescriptions and dispensing medications for chronically ill patients, questions aiming to identify pharmacists' opinions regarding the main difficulties in providing pharmaceutical care.

The study was conducted from April 2021 to December 2021. Respondents were given paper questionnaires to complete with the assistance of the RPC – Varna (Regional Pharmaceutical College–Varna).

Inclusion criteria: masters of pharmacy with more than one year of experience working in community pharmacies. The number of pharmacists who meet the study inclusion criteria, according to data from the registry of the professional association of pharmacists, is 301.

Results

27 master pharmacists working in community pharmacies, who have a contract with the NHIF, regular members of the Regional Pharmaceutical College - Varna, participated in the study. During the study period, a total of 301 Master Pharmacists met the set criteria. The number of participants exceeded 1/3 of the total number, which ensures the reliability of the results. The summary demographic and social characteristics of the sample, the mean values, standard deviation and significance level is illustrated in Table 1.

The results of the study showed that (53%) of the pharmacists had manifested occupational burnout with changes in two or three scales, with value associated with high level of burnout, Most of the study respondents showed high values in DP scale (51%), followed by EE scale (43%), and low values in PA scale (31%).

Respondents reported strongly that they had difficulty dispensing prescriptions for chronically ill patients paid by the NHIF. The distribution of the reported problems regarding prescription processing is presented in Fig. 1.

Table 1. General characteristics of the study participants (n = 127).

Characteristic	N	%
Gender		
Male	26	20%
Female	101	80%
Age		
25–45 years	73	58%
46–55 years	26	20%
Over 55 years	28	22%
Work experience		
Less than 5 years	44	34%
5–15 years	30	24%
16–25 years	21	16%
26–35 years	11	9%
More than 35 years	21	17%
Workplace position		
Employed staff	72	57%
Employed staff / License holder	40	31%
License holder /Pharmacy owner	15	12%
Type of workplace		
Pharmacy chain	75	59%
Independent pharmacy	52	41%
Total	127	100%

The data analysis shows that the leading problem for pharmacists 73(57%) is the administrative difficulties due to the specifics of technical processing and payment of medicines prescribed on this type of prescription forms. Second, according to 72 (56%), are the difficulties resulting from the frequent changes in the regulations governing the dispensing of medicines on these prescriptions. With an equal share of 38%, the lack of precise instructions and prior information about the changes, concerning the handling of prescriptions paid by the NHIF, were mentioned. The technical side of execution of prescriptions is time-consuming according to 35% of respondents and the

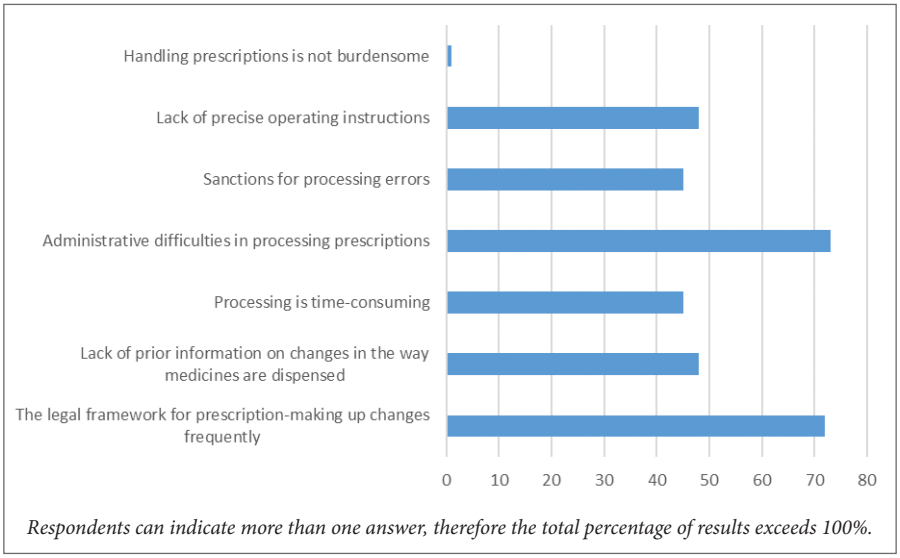

Figure 1. Difficulties dispensing prescriptions for chronically ill patients paid by the NHIF.

same number (35%) highlighted as a problem the financial penalties imposed on pharmacists when the NHIF finds technical errors in the execution of prescriptions.

The specifics and difficulties pharmacists cited in handling NHIF prescriptions as factors influencing burnout scales were examined. The results are illustrated in Table 2.

Table 2. Difficulties in the workflow resulting from the work with prescriptions under contract with the NHIF.

Scale	M	SD	F	p=
Lack of precise instructions (n = 48)				
DP	14.75	7.118	7.621	0.007
EE	31.85	13.25	15.905	0.000
PA	30.77	8.127	0.613	0.435
Frequent changes in the legal frameworks (n = 72)				
DP	13.14	6.578	0.517	0.474
EE	27.82	11.471	1.058	0.306
PA	31.15	7.877	0.236	0.628
Lack of prior information about changes in the way the MP was dispensed (n = 48)				
DP	14.01	6.972	3.333	0.7
EE	30.90	12.41	10.497	0.002
PA	30.09	8.446	0.402	0.527
Processing of prescriptions is time-consuming (n = 45)				
DP	14.62	7.337	5.943	0.016
EE	31.71	12.321	13.396	0.000
PA	30.04	8.221	2.469	0.119
Administrative difficulties in processing prescriptions (n = 73)				
DP	13.81	7.191	4.513	0.036
EE	28.44	13.428	4.926	0.028
PA	31.03	7.712	0.511	0.476

DP - Depersonalisation; EE - Emotional Exhaustion; PA - Personal Achievement; M - Mean Value; SD - Standard deviation.

The problem cited by a large proportion of respondents: frequent changes in regulations 72 (56%) showed no statistically significant influence on burnout scales. Values for EE (M = 27.82; SD = 11.471) and DP (M = 13.14; SD = 6.578) were lowest and associated with the lowest level of burnout compared to the other NHIF prescription difficulties considered.

The lack of precise instructions was a statistically significant factor for both the DP (F = 7.621; p = 0.007) and EE scales (F = 15.905; p = 0.000). The lack of prior information about changes in the way the MP was dispensed was a statistically significant factor on the EE scale (F = 10.497; p = 0.002). The time and commitment in processing prescriptions had a statistically significant effect on the DP (F = 5.943; p = 0.016) and EE (F = 13.396; p = 0.000) scales. The factor "administrative difficulty in processing prescriptions influences EE (F = 4.513; p = 0.036) and DP (F = 4.926; p = 0.028). Considered difficulties in handling prescriptions under NHIF did not have a statistically significant impact on the professional achievement scale.

The respondent pharmacists indicated the following constraints for providing Pharmacy care (PhC): Lack of time to provide PhC was indicated by the highest proportion: 64(50%), followed by those who indicated lack of financial incentive from employer: 32(25%) of the respondents, while lack of motivation to provide PhC was a problem for 26(20%) of the respondents. The stated constraints to PhC and correlation with each of the three scales forming burnout are presented in Table 3.

Table 3. Correlation between the difficulties in providing pharmaceutical care and burnout (EE, DP and PA scales).

Scale	N	%	M	SD	F=	p=
Lack of time						
DP	64	50%	14.31	6.868	7.718	0.006
EE	64	50%	28.94	13.35	5.631	0.019
PA	64	50%	30.11	8.032	4.209	0.042
Lack of motivation						
DP	26	20%	15.46	9.083	5.904	0.017
EE	26	20%	33.35	12.325	10.395	0.002
PA	26	20%	29.88	9.454	1.428	0.234
Lack of financial incentives from the employer						
DP	32	25%	14.97	7.723	5.117	0.025
EE	32	25%	29.16	11.439	2.519	0.115
PA	32	25%	31.06	7.278	0.106	0.745

DP - Depersonalisation; EE - Emotional Exhaustion; PA - Personal Achievement; M - Mean Value; SD - Standard deviation.

Pharmacists surveyed in all three groups showed high values for burnout. The group with the highest levels of burnout were the pharmacists who indicated lack of motivation for PhC as a problem. It is characterized by the highest mean values on EE (M = 33.35; SD = 12.325) and DP (M = 15.46; SD = 9.083) scales and the lowest values on the professional achievement scale PA (M = 29.88; SD = 9.454). Lack of motivation to pursue PhC correlated statistically significantly with the DP (F = 5.904; p = 0.017) and EE (F = 10.395; p = 0.002) scales.

For pharmacists indicating lack of time for PhC as a problem, values on EE (M = 28.94; SD = 13.35) and DP (M = 14.31; SD = 6.868) scales also fell in the high range, indicating a high level of professional burnout. The factor of no time for PhC showed a statistically significant relationship with the three burnout rating scales: DP (F = 7.718; p = 0.006); EE (F = 5.631;p = 0.019) and PA (F = 4.209; p = 0.042). Patient alienation, emotional exhaustion, and perceived decreased professional satisfaction were manifested as a result of this factor.

Lack of incentive to pursue PhC from the employer was reported as a factor that had a statistically significant impact on the DP (F = 5.117; p = 0.025) of the pharmacists studied and negatively affected the willingness to enter into a therapeutic relationship with the patient.

Discussion

Burnout affects more than half of the individuals studied (53%), confirming the results of other studies that have found elevated levels of occupational burnout in pharmacists, with the proportion affected exceeding 60% (Eickhoff et al. 2001; Jones et al. 2017; Durham et al. 2018; Patel et al. 2021).

In the present study, respondents who scored high on the DP (51%) scale predominated, followed by EE (43%) and PA (31%), whereas other studies among pharmacists, showed a preponderance of high EE scale scores followed by depersonalisation (Jones et al. 2017; Patel et al. 2021). Predominance on the DP scale suggests difficulties in communication and service, and a resulting compromise of pharmaceutical care. It is necessary to conduct trainings for successful stress management and development of communication skills. They will improve the quality of pharmaceutical care.

In the present study, increased levels of DP and EE were associated with administrative difficulties in processing prescriptions, lack of accurate instructions and lack of prior information about changes in the way NHIF prescriptions were dispensed. Prescription processing requires increased attention and concentration and appears to be a factor with a significant impact on burnout. Frequent innovations and changes in requirements lead to emotional exhaustion and a predisposition to technical errors, often resulting in sanctions for pharmacists by the NHIF. In support of the study results, the literature suggests that high levels of professional burnout are associated with reduced cognitive performance and the occurrence of performance errors (West et al. 2009).

Increased administrative workload for pharmacists shifts the focus away from pharmaceutical care and makes it more difficult to serve chronically ill patients (Okoro and Nduaguba 2021). About 64% of respondents in other studies complain about the increasing amount of administrative work (Nunn and Isaacs 2019). This is also confirmed by our research.

Pharmacists spend extra time to process and dispense patients' prescribed medications, which leads to overload of the surveyed individuals and loss of desire to come in communication with the patient and hence to provide PhC. The elevated DP levels characterizing the studied pharmacists directly influenced the willingness to enter into therapeutic relationships with patients. Literature evidence suggests that DP leads to medical professionals distancing themselves from the work process and patient care (Maslach et al. 1996). The present study confirms that DP is associated with pharmacists' isolation from the patients who depend on them and directly reflects on the quality of PhCs provided, through a lack of motivation to carry them out on the part of the pharmacist. Pharmacists feel dissatisfied with their work, emotionally exhausted and distanced from their patients because they do not have the opportunity to apply the knowledge and competencies they have acquired, which also lowers their sense of professional satisfaction. According to other authors, the large number of patients and the associated stress among pharmacists leads to misjudgment and errors in counselling, as well as an increased level of adverse drug reactions among the patients served (Tang et al. 2021). Lack of adequate consultation and pharmaceutical care in dispensing medicines to the chronically ill can lead to poor compliance and adherence to therapy and is a prerequisite for a number of drug-related problems for patients, as well as loss of trust in pharmacists and significant financial losses for the pharmacy (Okoro and Nduaguba 2021). This calls for a search for solutions to reduce the administrative workload in serving chronically ill patients.

Ensuring that the pharmacist has access to the patient's health record and the ability to submit information about problems related to ongoing treatment would contribute to the adequate implementation of pharmaceutical care. Many studies have shown a reduction in the cost of pharmaceutical care and an increase in patient outcomes (Okoro and Nduaguba 2021). The implementation of PhC in practice in Bulgaria is associated with a number of limitations that stem from the existence of only one health insurance fund - the NHIF and the lack of established financing mechanisms. Savings from improved health outcomes when implementing PhC in practice can be redirected to their financing and adequate payment (Sancar et al. 2013). The introduction of clear mechanisms and rules for the implementation of PhC will incentivise employers and pharmacists in pharmacies to implement medication therapy management (MTM) (Langley and Sullivan 2020). Another possibility is that the programmes offered to the chronically ill patients and the highly specialised pharmaceutical services involved should be paid for by the patients themselves (Mercadante et al. 2020; McGivney 2022). The introduction of an appropriate payment model for CP and its successful implementation in pharmacy practice is a current issue and the subject of studies in a number of countries (Mercadante et al. 2020; Huang et al. 2023).

The study has shown that the quality of pharmaceutical care is adversely impacted by the administrative burden and the absence of a financing mechanism. To improve pharmaceutical care for chronically ill patients, a new method of financing their treatment should be introduced. The process of prescribing and dispensing drugs for them should be simplified to reduce the administrative burden. Additionally, clear quality criteria for pharmaceutical care should be established. New mechanisms should be put in place to finance pharmaceutical care.

Conclusion

The primary focus of pharmacists practicing in community pharmacies should be the patient with their therapeutic needs and health concerns. Frequent innovations in prescription service for the chronically ill patients and increased administrative duties in pharmacy are a prerequisite for burnout among pharmacists. As a result, they are distanced and alienated from the patient and this compromises the delivery of pharmaceutical care. In order for the pharmacist to be most effective with their consultation, as the most accessible health professional, it is necessary to minimize administrative bottlenecks in the job. This is made possible by a longer grace period to implement changes in practice, accompanied by an extensive information and training programme for pharmacists.

Deferring the multitude of administrative duties will improve the pharmacist-patient relationship and unlock

opportunities and motivation to conduct PhC. On the other hand, the introduction of funding mechanisms for PhC in chronically ill patients will increase the professional commitment of pharmacists and incentivize them to rigorously monitor the disease and implement medication therapy management (MTM), which will optimize medication therapy and lead to improved patient health outcomes.

It is necessary to introduce changes in the way pharmaceutical care is paid for and to rationalize the process of prescribing and dispensing. Pharmacists need to be included in training to improve communication skills

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