

**EVALUATING THE STRESS LEVEL OF HOSPITAL PHARMACIST AT  
PEAK HOURS WORK OF PHARMACY: PREVALENCE,  
DETERMINANTS, AND RECOMMENDED SOLUTIONS**

**Anum Sattar<sup>1</sup>, Rasheeda Fatima<sup>1</sup>, Ayesha Ali<sup>2</sup>, Nurhan Tariq<sup>3</sup>, Noor us Saba  
Mansoor<sup>4</sup>**

<sup>1</sup>Department of Pharmacy Practice, Faculty of Pharmacy and Pharmaceutical Sciences, Ziauddin University, Karachi, Pakistan.

<sup>2</sup>Department of Pharmacology, Faculty of Pharmacy, Lahore Institute of Professional Studies, Lahore, Pakistan.

<sup>3</sup>Department of Pharmaceutics, Faculty of Pharmacy, Lahore Institute of Professional Studies, Lahore, Pakistan.

<sup>4</sup>Department of Pharmacy Practice, Faculty of Pharmacy, Lahore Institute of Professional Studies, Lahore, Pakistan.

**ARTICLE INFO:**

**Keywords:**

Pharmacists, Stress, Working Hours

**Corresponding Author:**

**Anum Sattar**

**Email:** [anum.sattar@zu.edu.pk](mailto:anum.sattar@zu.edu.pk) /  
[anumsattar2018@gmail.com](mailto:anumsattar2018@gmail.com)

**Article History:**

Published on December 7, 2025

**ABSTRACT**

**Background**

Pharmacy stress is an increasing issue that may negatively impact job performance and patient safety due to workplace stress among the pharmacy staff. This research was intended to determine the degree of stress, its contributing factors, coping mechanisms and possible remedies among pharmacy professionals.

**Objectives**

To measure the level of stress in the workplace, determine key stressors, measure the effects of these stressors, research the potential coping strategies, and identify the stress reduction strategies that staff members would recommend.

**Methods**

The survey was done on 100 pharmacy personnel in a cross-sectional study. The information was gathered on demography, workload pattern, frequency of stress, the factors contributing to it, its effects on patient safety, coping strategies, and the solution to it. The findings were summarised using descriptive statistics.

**Result**

The sample size was 67 percent female and 40 percent with 1-3 years of working experience. 66% of respondents indicated the morning shift (8 12 PM) to be the busiest. Most of them, over 51% (n=42), filled more than 150 prescriptions per day, and 60% of them indicated that they were understaffed. There was a high prevalence of stress, with 43% reporting always having stress and 20% reporting having it frequently. High patient load (34%), absence of staff support (25%), multitasking and interruptions (14%), and absence of automation (13%) were considered major stress factors. 62% of participants interfered with patient safety on a regular or even frequent basis. The most frequent coping mechanisms were team support (43%) and short breaks (28%). The proposed resolutions were the employment of additional

personnel (43%), digital automation (23%), and an improved shift schedule (13%).

### **Conclusion**

Workload, shortages of staff and inefficiencies in the workflow (which may compromise patient safety) are major forms of stress that pharmacy staff experience in the workplace. The interventions at the system level (additional staffing, further workflow automation, organisational support) are necessary to improve staff well-being and provide safer patient care.

## **INTRODUCTION**

The psychological reaction to work-related stress is known as burnout, and it manifests as emotional tiredness, elevated depersonalization and cynicism, and diminished feelings of personal efficacy or success(1). The World Health Organisation's definition characterises it as a workplace issue that happens when chronic stress is ineffectively managed, while it is not recognised as an illness(2). Healthcare workers have high rates of burnout, which has been linked to lower productivity, more job turnover and worse mental and physical health (3). The ensuing detrimental effects on patient care are substantial, leading to medication mistakes, worse treatment quality, and mortality(3-5). Compared to other professions like teaching and medicine, the pharmacy field has not received as much research (6). A prevalence range of 10–61% of pharmacists was published in a prior systematic review; however, this estimate range was based on just five studies, all from the United States, and exclusively pre-COVID-19 studies (7). This is of relevance as the function of the pharmacist in healthcare service has developed at various rates internationally, in some cases catalysed by pandemic-related developments.

More advanced pharmacy systems now involve the utilisation of pharmacists' entire scope of practice, including prescription and vaccination delivery (8, 9). With a growing ageing population globally, multimorbidity and polypharmacy are becoming frequent and pharmacist-directed care and medication management are becoming increasingly

difficult. Pharmacists are essential to the safe and effective use of medications, supply continuity in the face of frequent shortages, medication compounding, and medication information [(10). Additionally, because pharmacies are convenient, accessible, and offer free services, the public heavily utilises patient-facing pharmacists, particularly those working in community settings. This leads to high patient and prescription volumes, frequent clinical consultations, and patient education. This increase in effort and responsibility, coupled with the extra burden of a pandemic on health care, may impair pharmacists' physical and psychological welfare and rates of burnout(10). To measure the level of stress in the workplace, determine key stressors, measure the effects of these stressors, research the potential coping strategies, and identify the stress reduction strategies that staff members would recommend.

## **METHODOLOGY**

### **Study Design**

In this Study, a questionnaire-based design and a cross-sectional research method, and evaluated workplace stress, workload trend, stress coping styles, and the perceived issue of patient safety among pharmacy staff.

### **Setting and Population of the Study**

The study was carried out on pharmacy professionals who are operating in both the community and hospital pharmacy settings. The target population comprised registered pharmacists and pharmacy technicians who were currently working full-time/shift in the immediate period of data collection.

### **Inclusion and Exclusion Criteria.**

The criteria used to include the pharmacy staff were those who had at least six months of work experience in their present job. Others excluded included those who had been interns, student pharmacists, retired professionals, and others not concerned with actual pharmacy work. Incomplete questionnaires and those without the necessary information were also locked out of the final analysis.

#### **Sample Size and Sampling Technique.**

The study involved sampling 100 participants with the help of a convenience sampling method. The sample was made up of 33 percent men and 67 percent men and women, respectively. The sample size chosen was deemed large enough to give descriptive information about stress in the workplace and the factors that contribute to the same in the pharmacy industry.

#### **Data Collection**

The data was gathered with the help of a structured self-administered questionnaire, which was made after the review of the literature on the topic of occupational stress in healthcare facilities. The questionnaire was in the form of closed-ended questions that comprised demographic data, workload indicator, frequency of stress, factors leading to stress, coping mechanisms, and stress reduction interventions of choice.

#### **Data Collection Procedure**

The questionnaire was passed manually and through electronic means so that as many people as possible could be reached. Before filling out the survey, the participants were told about the purpose of the study, and they had to give informed consent. The information was self-administered, which reduced the chances of responses being biased and promoted truthful reporting of the stressful experiences.

#### **Data Analysis**

Data were collected, coded and typed into SPSS Version 25 to be analysed statistically. Variables like gender distribution, work

experience, highest workload hours, prescription volume, workforce adequacy, stress frequency, stress factors, coping strategies, and general stress levels were summarised using descriptive statistics, including frequencies and percentages. Findings were presented in table and graphical forms to be understandable.

#### **Results**

The number of respondents in the study was 100. Most of the respondents were females (67%), and the males were 33% as shown in Table 1. The work experience showed that the highest percentage of 40% comprised of 1-3 years' work experience, 22% comprised of 4-6 years' work experience, 20% comprised of less than 1 year's work experience, with the remaining 8 years of work experience making up the remaining 8%. The morning shift (8-12 PM) was found to be the busiest among 66% of the respondents, and 16% of the respondents indicated the night shift to be their busiest period. Most of the respondents (51 percent) dealt with more than 150 prescriptions daily, and 34 percent had 50 to 100 prescriptions daily. Only 60-percent of the participants reported insufficient staffing as a problem, which implies that this is a significant operational dilemma at the workplace. There was also a lot of stress, with 43% saying that they were always stressed, and 20% that they were often stressed, with only 2% saying they had never felt stressed. The most notable stressors were high patient workload (34%), absence of staff support (25%), interruptions and multitasking (14%), and absence of automation or digital tools (13%), as well as physician or nurse pressure (8%). The effects of these stressors on patient safety were observed to be significant, as 23% said that the safety was frequently negated and 39% said that it was occasionally negated. The respondents were most likely to employ the team support strategy (43%), taking short breaks (28%), and prioritising urgent tasks (19%). The possible strategies that were

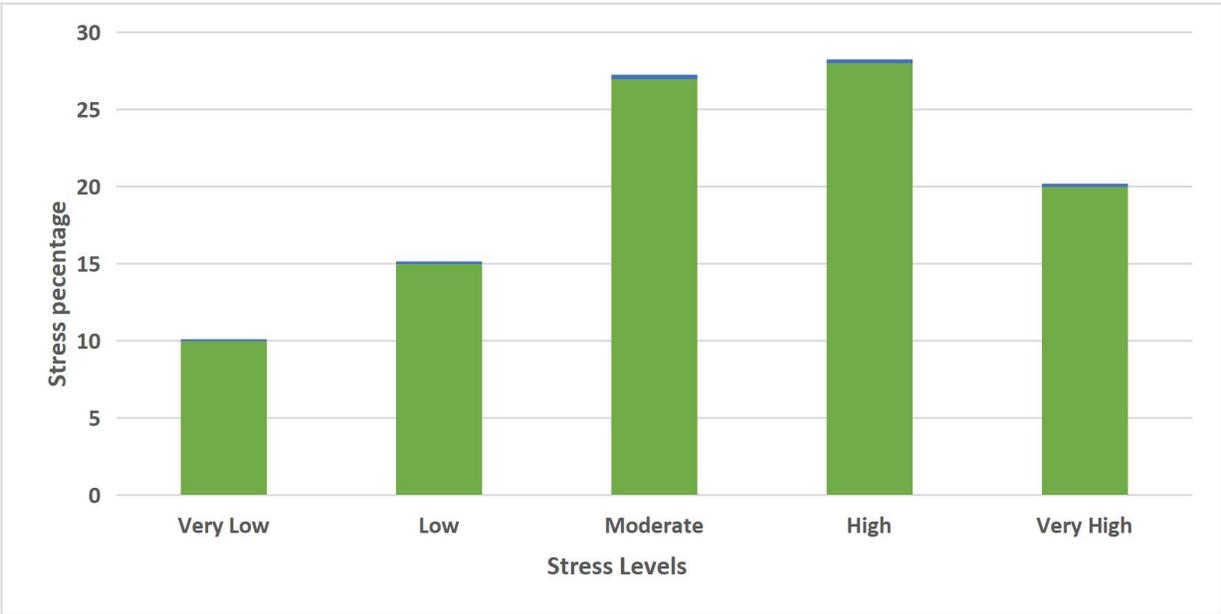
suggested by the participants to mitigate stress at the workplace include hiring more employees (43%), digitalising the workplace (23%), better scheduling shifts (13%), and

stress management training (10%). Figure 1 demonstrates the different levels of stress and the percentage.

**Table 1: Summary of the Characteristics and Stress-Relevant Facts of the participants**

Gender	Number (n)	Percentage (%)
Male	33	33%
Female	67	67%
<b>Work Experience</b>		
Less than 1 year	20	20%
1–3 years	40	40%
4–6 years	22	22%
More than 6 years	8	8%
<b>Busiest Peak Hours</b>		
Morning (8–12)	66	66%
Afternoon (12–4)	8	8%
Evening (4–8)	10	10%
Night shift	16	16%
<b>Prescriptions per day</b>		
Less than 50	15	15%
50–100	34	34%
More than 150	51	51%
<b>Staffing sufficient</b>		
Yes	40	40%
No	60	60%
<b>Stress Frequency</b>		
Always	43	43%
Often	20	20%
Sometimes	23	23%
Rare	12	12%
Never	2	2%
<b>Stress Factors</b>		
High patient load	34	34%
Lack of staff support	25	25%
Pressure from physicians/nurses	8	8%
Lack of automation/digital tools	13	13%
Interruptions & multitasking	14	14%
Other	6	6%
<b>Patient safety compromised</b>		
Yes, often	23	23%
Sometimes	39	39%
Rarely	28	28%
Never	10	10%

Coping Methods		
Short breaks	28	28%
Team support	43	43%
Prioritizing urgent tasks	19	19%
Ignoring stress	10	10%
Other	0	0%
Stress Reduction Solutions		
Hiring more staff	43	43%
Digital automation	23	23%
Better shift scheduling	13	13%
Stress management training	10	10%
Supportive policies	9	9%
Other	2	2%



**Figure :1: Distribution of stress levels among the hospital pharmacists**

**DISCUSSION**

The results of the research indicate that pharmacy employees are under high occupational stress, which is mostly determined by heavy workloads, staffing shortages, and work inefficiency. Most interviewees worked with many prescriptions per day, which is in accordance with the most common stressor, revealed high patient load. This is even complicated by the fact that 60 percent of the respondents indicated understaffing, which has been well-

documented in the literature as one of the major causes of burnout, time pressure, and decreased job satisfaction among healthcare professionals. The reported high rate of stress, almost two-thirds of the participants said they were stressed always or often, indicates that there is a work environment with heavy emotional and cognitive demands on employees. The existence of stress-related issues like interruptions, multi-tasking and absence of digital support means that there are loopholes in workflow design and technology

in the workplace. Notably, the aspect of patient safety is also discussed in the study, as over 60 percent of the respondents have admitted that, at least at times, safety has been compromised. The result supports the evidence of pharmacists around the world that pharmacist stress and workload overload are likely to increase the chances of dispensing errors and negatively affect clinical judgment. Although the support of teams and breaks are widely used coping skills, they cannot cope with systemic problems. The recommendations of the participants, in particular, the increase in staff and the digitalization of processes, elucidate the necessity of interventions on the organizational and policy levels. The staffing ratios, workflow efficiency, and stress management training might be beneficial in reducing the pressure levels of stress and increasing the quality of pharmaceutical services. The findings underscore the need to deal with structural issues and not to use personal coping mechanisms to guarantee the well-being of the staff and patient safety. Stressors groups included having too much work to perform, frequent interruptions from other people, and insufficient personnel to fulfill tasks. Because their jobs did not challenge them, very few pharmacists claimed to be stressed. The results obtained are comparable to those documented by others pharmacists in various hospital settings(11-14)

### **Conclusion**

The pharmacy employees have high levels of work stress that are triggered by workload, shortage of staff, and workflow discontinuity at the workplace, which in turn impair patient safety. System-level solutions such as additional staffing, automation of workflow, and organizational support are necessary to improve the well-being of staff and provide safer patient care, primarily because of the large number of patients, lack of adequate staffing, and disruption of the workflow. These stressors not only affect the well-being

of employees, but they also threaten patient safety with most of them reporting infrequent cases of compromised safe practice. Even though employees depend on coping mechanisms, including team support and rest, these are not enough to address the systemic problems. The suggestions of the participants, including recruiting additional employees, digitalization, improving work shifts, and providing stress management training, represent an indication of structural and policy-level changes. It is necessary to tackle them and provide a more favourable work environment, which will help to decrease burnout and increase the efficiency and safety of pharmacy services. Overall, the research supports the need to focus on workforce management and operational improvements to guarantee the quality of the provided patient care.

### **References**

1. Bianchi R, Schonfeld IS, Laurent E. Is it time to consider the “burnout syndrome” a distinct illness? *Frontiers in public health.* 2015;3:158.
2. Organization WH. ICD-11 for mortality and morbidity statistics (2018). 2018.
3. Hagemann TM, Reed BN, Bradley BA, Clements JN, Cohen LJ, Coon SA, et al. Burnout among clinical pharmacists: causes, interventions, and a call to action. *Journal of the American College of Clinical Pharmacy.* 2020;3(4):832-42.
4. Shanafelt TD, Balch CM, Bechamps G, Russell T, Dyrbye L, Satele D, et al. Burnout and medical errors among American surgeons. *Annals of surgery.* 2010;251(6):995-1000.
5. Hall LH, Johnson J, Watt I, Tsipa A, O’Connor DB. Healthcare staff wellbeing, burnout, and patient safety: a systematic review. *PloS one.* 2016;11(7):e0159015.
6. Haase KK. Addressing burnout in clinical pharmacy: what can we learn from other health care disciplines? *Journal of the*

American College of Clinical Pharmacy. 2020;3(3):645-54.

7. McQuade BM, Reed BN, DiDomenico RJ, Baker WL, Shipper AG, Jarrett JB. Feeling the burn? A systematic review of burnout in pharmacists. *Journal of the American College of Clinical Pharmacy*. 2020;3(3):663-75.

8. Bourne RS, Baqir W, Onatade R. Pharmacist independent prescribing in secondary care: opportunities and challenges. *International journal of clinical pharmacy*. 2016;38(1):1-6.

9. Poudel A, Lau ET, Deldot M, Campbell C, Waite NM, Nissen LM. Pharmacist role in vaccination: Evidence and challenges. *Vaccine*. 2019;37(40):5939-45.

10. Hayden JC, Parkin R. The challenges of COVID-19 for community pharmacists and

opportunities for the future. *Irish journal of psychological medicine*. 2020;37(3):198-203.

11. Lapane K, Hughes C. Job satisfaction and stress among workers providing long-term care pharmacy services. *Consultant Pharm*. 2004;19:1029-37.

12. Wolfgang AP, Perri III M, Wolfgang CF. Job-related stress experienced by hospital pharmacists and nurses. *American Journal of Hospital Pharmacy*. 1988;45(6):1342-5.

13. Mott DA, Doucette WR, Gaither CA, Pedersen CA, Schommer JC. Pharmacists' attitudes toward worklife: results from a national survey of pharmacists. *Journal of the American Pharmacists Association*. 2004;44(3):326-36.

14. Penna S, Paylor I, Soothill K. Job satisfaction and dissatisfaction amongst residential care workers. York: Joseph Rowntree Foundation. 1995.