

Physician Task Load: Strategies to Mitigate Stress Among Doctors



Hassan Mumtaz¹, Hajirah Khalid², Sana Aftab³, Ahsan Shafiq⁴, Shahzaib Ahmad⁵, Tehreem Fatima⁶

Abstract

Background: Work schedules and conditions have a significant impact on the physical, mental, and social well-being of physicians. The purpose of this study is to determine the workload of physicians working in various departments of a tertiary healthcare centre, as well as the link between physician job load and specialty.

Methods: This Cross-Sectional study was carried out from October 2020 to November 2020 at KRL Hospital Islamabad. Hospital records were used to gather information about the number of patients. Four parameters, such as mental demand, physical demand, time and effort demands were evaluated.

Results: Gynecology had the highest patient load (23 percent), followed by pediatrics (21%) and surgery (14 %). Physically and mentally taxing specialties were urology and maxillofacial surgery. Psychiatry had the lowest demands in terms of mental, physical, time, and effort.

Conclusion: Our study shows that Urology and Internal Medicine are more time-consuming and stressful for the physician to perform. Physicians need better working conditions and less work, so we should focus on stress management and reduction for them.

Keywords: Burnout, doctor stress, depression, emotional exhaustion, physician task load

¹ Maroof International Hospital Islamabad

² KRL Hospital Islamabad

³ Pakistan Institute of Medical Sciences, Islamabad

⁴ Rawalpindi Medical University & CIBNP, California USA

⁵ King Edward Medical University Lahore

⁶ CIBNP, California USA

Correspondence:

Hassan Mumtaz
hassanmumtaz.dr@gmail.com

Introduction

Amid the COVID-19 global pandemic, the workload on the global healthcare facilities is immense (1). The task load on the physicians is dependent on a number of factors. Different specialties demand a different level of stress and working hours. The roster and timetables of emergency, outpatient department (OPD), and on-call services in a specialty are designed keeping in view the human resource, strength, and number of consultants in the concerned department to keep the workload balanced (2).

The working hours and working conditions are associated with an immense influence on the physical mental and social well-being of the physicians. It is the mission of healthcare management to keep doctors as stress-free as possible. The physician's ability to deliver constant medical services is hampered by physical, emotional, and social stress. Hence, the appraisal of stress on healthcare workers working any different fields is an area to be emphasized on (3)

The comparative stress and workload must be assessed in healthcare workers so that it may act as a limelight for the medical aspirants. The physician's perspective about the working conditions of the

particular field may guide the undergraduate students to compare their skill set with the requirements of the field (4). It lays a basis for career choice. It also establishes limelight for the hospital administration and healthcare department to take steps to mitigate the burden on health care workers of the field (5).

Work-related stressors, such as excessive workload, long shifts, clerical burdens, electronic medical records (EMR), inefficient work processes, complex patient-related decisions, poor work-life integration, hostile working environments and organizational factors (misaligned organizational culture, values, and leadership behaviors) (6) can all contribute to physician burnout. As a result of burnout among physicians, they are more likely to make mistakes, such as prescribing the wrong prescription or diagnosing an illness incorrectly, resulting in reduced patient satisfaction and adherence to treatment programs. Doctors who are depressed had higher physician turnover, lower productivity, less contentment at their jobs, more absence from work, and worse interpersonal relationships (with family and friends) (7).

For the sake of patients and healthcare systems around the world, this must be addressed urgently. Burnout can be effectively reduced by reducing

personal and organizational risk factors and developing measures to manage workloads and improve physician well-being. Statistically substantial decreases in depersonalization rates were seen after interventional treatments were implemented in a Mayo Clinic Research in Rochester, Minnesota (8). The recruitment of new health care providers to the departments with heavy workloads may be an effective strategy to divide the workload (9).

It has been found that there are three general approaches to coping with stressful situations: 1) problem-focused coping, which aims to fix the situation; 2) emotion-focused coping, which is focused on managing the response to the situation; and (3) avoidance-focused coping, which is aimed at removing the threatening situation from the individual's life. As time goes on, people's beliefs about how to cope with stressful situations change, as well as their capacity to respond positively to those experiences. In Pierceall et al (10), they recommend the following as effective coping mechanisms: talking to family and friends, engaging in leisure activities, and engaging in physical exercise. It's not uncommon, even with the usage of healthy coping mechanisms, for people to resort to unhealthy coping mechanisms like alcoholism, drug addiction, and smoking.

Our study aims at assessing the workload on physicians working and various departments of a tertiary healthcare center & the relationship between physician task load with respect to specialty. We evaluate the nature of the skill set associated with numerous fields.

Methodology

This was cross sectional Study was conducted at Khan Research Laboratories Islamabad from October 2020 to November 2020

Inclusion & Exclusion Criteria

All the senior consultants having 5-10 years' experience & head of departments were included in our study. Junior consultants having 1-3 years' experience & trainee residents were excluded from our study.

Data Collection

Hospital records were used to collected data regarding the Patient load after the ethical approval was obtained from ethical committee of KRL Hospital.

Physician task was determined by using four parameters e.g., Mental demand, physical demand, Time demand, and effort demand. Our study was conducted using two approaches. First, we evaluated the patient load of each department and then used a questionnaire to get physician perception regarding demand in their specialty.

All the physicians of KRL Hospital were interviewed using the same questionnaire. Consent was taken before participation. Being a 350 bedded Hospital, KRL has total number of 95 consultants out of which only 50 participated, making a response rate of 52.63%. The questionnaire asked for information on demographics (age, gender) and professional characteristics (specialty, practice setting, hours worked per week, nights on call per week).

Data Analysis

The physician's perception of what they think described the best demand type of job. The scale ranged from 0 to 100. 100 is the highest level of demand. All the scale scores of the demands were added and the mean value was obtained to describe the demands of that particular specialty.

Results

In our study there were 70% males & 30% females. Our survey showed that the highest patient load was observed in gynecology (23%) followed by Pediatrics and Surgery both comprising 21% of the total patient task load. Medicine and Cardiology had almost equal task loads (approximately 11%). Urology succeeded these specialties followed by Psychiatry and Maxillofacial Surgery (Figure 1).

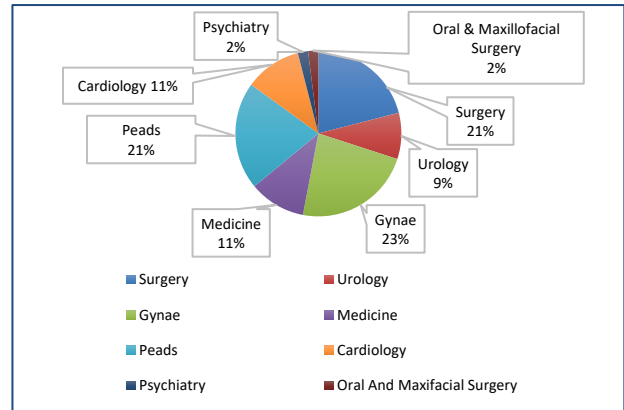


Figure 1: Showing the percentage of patient load in each Specialty

The physical involvement was minimum in Psychiatry and maximum in Surgery, Urology, and Maxillofacial surgery and lower but almost equal in the rest of the specialties. The participants were asked to rate various aspects of a specialty on a scale from 0 to 100. The physicians reckoned that the "time demand" was the greatest in urology and approximately equal in all other specialties. Combined demands of physical, mental, time and efforts, urology, and maxillofacial surgery were on the top of the list. Psychiatry was graded with the lowest combined demands of mental, physical, time, and efforts. Urology, Surgery, and Maxillofacial Surgery specialties had equal physical involvement indices (60 each). Overall psychology and pediatrics are less hectic fields than others as shown in Figure 2.

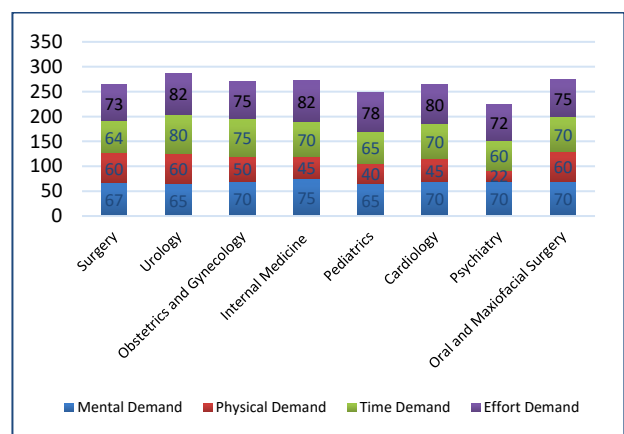


Figure 2: Showing the ratio of demand in different specialties.

Discussion

The opinions of medical personnel working in a particular specialty are of great importance while getting knowledge about the difficulty of a field (11). Our survey was directed to assess the hectic schedule of physicians working in

various specialties. A self-rating questionnaire asking time, effort, physical & mental exertion levels set a scale that may help the predecessors to understand the demands of the field. Psychiatry overall is a field that requires less physical and mental efforts according to the survey.

This survey may serve as an introduction to the interface of the field. Interestingly, urology in contrast to other allied surgery fields requires more effort. The mental acquaintance of the professional must match with his skills and his passion. Mental satisfaction increases when physical stress levels are bearable. Among the factors that influence medical students in career choice are the prestige of the field, gender, personal preference, economic factors, ease of the training, and burden of the field (12). Thus, our study may guide the students about the professional workload through the lens of the trained professionals working in those fields.

Surveys like these can augment the clarity of choice in career selection among female medical students. Women in Pakistan must balance between work and household chores. The stress of household and hospital can be detrimental to the physical and mental health of women (13).

So, female medical students may opt for a specialty keeping in view the imminent stress load of their field of specialty and domiciliary responsibilities. Numerous female medical students opt to abandon professional services in Pakistan after marriage (14).

One of the documented factors of this decision is the lack of ability to maintain a balance in the workplace and household responsibilities. Instead of leaving the profession altogether, the women in the field may look for a specialty with the least clinical burden. University of Munich says that in emergency department (ED) care, multitasking is often unavoidable. Their findings suggest that ED physicians' multitasking increases stress, but may facilitate the professional's experiences of situation awareness. Further investigation is needed into the possible ambivalent effects of ED providers' multitasking in effectively distributing time between competing demands while ensuring safety (15). There were significant differences in job stressors, demands and resources found in the German study. Physicians' health and ability to work are discussed in relation to work factors. It's imperative that these findings be re-examined, particularly in a longitudinal study design. Mental health promotion strategies should be developed and implemented by hospital management in order to ensure the well-being of physicians, according to this study in addition, hospital management should focus on operational efficiency by optimizing resources and improving work processes (16).

Our results showed the highest patient load was observed in gynecology (23%) followed by Pediatrics and Surgery compared to a national survey published in 2020 specialties with the highest PTL score were emergency medicine, urology, anesthesiology, general surgery subspecialties, radiology, and internal medicine subspecialties (17).

Load shedding may occur if our working memory is overloaded. Doctor Harry from The Joint Commission Journal on Quality and Patient Safety warned, "Load shedding is when you start losing pieces of data and you are completely unaware that you lost them – putting us at risk for medical errors." According to him, standardization across hospital units and teams and providers, reduction of

redundancy in the communication of relevant data (and ways to receive it), consolidation of information, process coupling, team consensus on what warrants interruption or blockage of interrupted work are three factors that can help reduce PTL (18).

According to a study conducted in Canada, four coping strategies were found to be particularly effective in reducing work-related stress: collegiality, self-care, work management, and a positive attitude. 19 Nearly one-third of participating physicians fulfilled criteria for burnout, and burnout was connected with increasing temporal demands, according to a report from the American Cancer Society. Qualitative interviews have shown the root causes of overwork and over commitment, allowing for more precise intervention. Institution-specific burnout may be prevented by using this approach, which is easily adaptable to a wide range of settings (20).

Our results showed Urology & Internal Medicine suffered with effort demand (82%) while (80%) for Cardiology compared to General Practice Research Network Burnout Study Group, found that, 12% of participants suffered from burnout in all three dimensions, 43% scored high for Emotional Exhaustion, 35% for Depersonalization, and 32% for low Personal Accomplishment (21).

Medical oncologists in the Canadian province of Ontario say that Predefined criteria for burnout were met by nearly 75% of participants. Oncologists in Ontario may be particularly vulnerable to burnout, given the well-documented negative effects on providers' mental health, patient safety, and quality of care. In response to the COVID-19 epidemic, new healthcare systems can be built that address the root causes of burnout. Early to mid-career employees may benefit from increased peer-to-peer and leadership engagement opportunities (22). According to a national electronic, prospective, cross-sectional study, emergency physicians have suffered substantial levels of psychological distress as a result of the COVID-19 epidemic. Anxiety, sleeplessness, and post-traumatic stress disorder (PTSD) were more common in those who relied on avoidant coping mechanisms, while humor and positive reframing were found to be useful (23).

To reduce personal, work-related and patient-related burnout, German general practitioners propose that focused therapies should focus on enhancing Work-SoC, recuperation experience outside working hours and illegitimate duties. In terms of personal burnout solutions should focus on gender issues (e.g., work-family interactions) and employed physicians (e.g., leadership) (e.g., leadership). In terms of patient-related burnout, Balint groups supporting the exchange among colleagues may assist increase the relationship with patients. A benefit of strengthening health-promoting tactics among GPs is that those who learn about self-care are more likely to communicate their knowledge and strategies to their patients, and to integrate health promotion strategies in their patient contacts and consultations (24,25).

Recommendations & Way Forward

Based on the analysis of the study we provide recommendations for mitigation of stress associated with work-related stress among healthcare providers. Burnout sufferers may benefit more from a longer-term stress management program that includes booster sessions.

The healthcare industry could benefit from stress reduction

and professional coaching programs that have been successful in the financial sector. Implementing hospital rules for the allocation of job duties and the establishment of defined roles are critical considerations. Physicians should be able to take paid leave and time off to pursue their personal interests.

Strengths

This survey forms a basis of comparison of a person's ability to cope with stress, the temperament to the demands of the field. This observational is the first of its kind in Pakistani settings. Other such surveys can augment the understanding of other allied medicine and allied surgery specialties.

Limitations

PTL's relationship with burnout measures and the study's low response rate are two of the study's potential weaknesses. Overburdened workers may be less inclined to participate in surveys, which could lead to bias in the results. Shorter duration of study was also a limitation of our study.

Conclusion

Our study depicts that Urology & Internal Medicine are more time demanding as well as mental stress for the physician. We should focus on stress management & reductions for physicians in order to provide them a better workplace and decrease the workload at their practice.

References

- Ramaiah P, Tayyib NA, Alsolami FJ, Lindsay GM, Asfour HI. Health professionals dynamic role amid covid-19: nursing perspectives. *Journal of Pharmaceutical Research International*. 2020 Sep 18:93-100.
- Baird B, Reeve H, Ross S, Honeyman M, Nosa-Ehima M, Sahib B, Omojomolo D. Innovative models of general practice. *King's Fund*; 2018 Jun.
- Heath C, Sommerfield A, von Ungern-Sternberg BS. Resilience strategies to manage psychological distress among healthcare workers during the COVID-19 pandemic: a narrative review. *Anaesthesia*. 2020 Oct;75(10):1364-71.
- Zaheer F, Rehman HU, Fareed W, Khan MO, Rizvi SA. Factors affecting the choice of a career in the field of surgery among medical students of Karachi. *Cureus*. 2018 Nov;10(11).
- Pastores SM, Kvetan V, Coopersmith CM, Farmer JC, Sessler C, Christman JW, D'Agostino R, Diaz-Gomez J, Gregg SR, Khan RA, Kapu AN. Workforce, workload, and burnout among intensivists and advanced practice providers: a narrative review. *Critical care medicine*. 2019 Apr 1;47(4):550-7.
- Physician burnout: contributors, consequences and solutions. West CP, Dyrbye LN, Shanafelt TD. *J Intern Med*. 2018;283:516-529.
- Physician burnout: a potential threat to successful health care reform. Dyrbye LN, Shanafelt TD. *JAMA*. 2011;305:2009-2010.
- The relationship between physician burnout and quality of healthcare in terms of safety and acceptability: a systematic review. [May;2019];Dewa CS, Loong D, Bonato S, Trojanowski L. <http://10.1136/bmjopen-2016-015141> *BMJ Open*. 2017 7:0.
- Ahmad R, Lee MY, Othman AE, et al. The Impact of Workload on Job Performance among Doctors in Malaysian Public Hospitals. a Case Study. *International Journal of Business and Society*. 2019;20(3):1276-93.
- Brooke, T., Brown, M., Orr, R. *et al.* Stress and burnout: exploring postgraduate physiotherapy students' experiences and coping strategies. *BMC Med Educ* 20, 433 (2020). <https://doi.org/10.1186/s12909-020-02360-6>
- Creed PA, Searle J, Rogers ME. Medical specialty prestige and lifestyle preferences for medical students. *Social science & medicine*. 2010 Sep 1;71(6):1084-8.
- Alizadeh Y, Khoshbakht Pishkhani M, Kazemnezhad Leily E, Khoshrang H, Behboudi H, Mohammadi MJ, Bakhshi F, Rostamnezhad M. Factors associated with medical students tendency to choose a medical specialty. *Journal of Guilan University of Medical Sciences*. 2014 Apr 10;23(89):29-36.
- Masood A. A doctor in the house: Balancing work and care in the life of women doctors in Pakistan. *Arizona State University*; 2017.
- Mohsin M, Syed J. The missing doctors — An analysis of educated women and female domesticity in Pakistan. *Gender, Work & Organization*. 2020 Mar 24 ;27(6):1077-102.
- Augenstein T, Schneider A, Wehler M, Weigl M. Multitasking behaviors and provider outcomes in emergency department physicians: two consecutive, observational and multi-source studies. *Scand J Trauma Resusc Emerg Med*. 2021 Jan 7;29(1):14. doi: 10.1186/s13049-020-00824-8. PMID: 33413575; PMCID: PMC7792086.
- Bernburg M, Vitzthum K, Groneberg DA, *et al.* Physicians' occupational stress, depressive symptoms and work ability in relation to their working environment: a cross-sectional study of differences among medical residents with various specialties working in German hospitals. *BMJ Open* 2016;6:e011369. doi: 10.1136/bmjopen-2016-011369
- Elizabeth Harry, Christine Sinsky, Lotte N. Dyrbye, et al. Physician Task Load and the Risk of Burnout Among US Physicians in a National Survey, *The Joint Commission Journal on Quality and Patient Safety*, Volume 47, Issue 2, 2021. Pages 76-85. <https://doi.org/10.1016/j.jcjq.2020.09.011>.
- Working Together to Decrease Physician Task Load and Burnout. 14th May 2021. <https://www.jointcommission.org/resources/news-and-multimedia/blogs/improvement-insights/2021/05/working-together-to-decrease-physician-task-load-and-burnout/>
- Lepnurm R, Nesdole R, Dobson RT, Peña-Sánchez J-N. The effects of distress and the dimensions of coping strategies on physicians' satisfaction with competence. *SAGE Open Medicine*. January 2016. doi:10.1177/2050312116643907
- Lindsay J. Blazin, Michael A. Terao, Holly Spraker-Perlman, Justin N. Baker, Valerie McLaughlin Crabtree, Belinda N. Mandrell, Jami Gattuso, Janet Sellers, Tyler J. Dunn, Zhaohua Lu, James M. Hoffman, and Jonathan D. Burlison. *JCO Oncology Practice* 2021 17:7, e958-e971
- Soler J.K., Yaman H., Esteva M., Dobbs F., Asenova R.S., Katic M., Ozvacic Z., Desgranges J.P., Moreau A., Lionis C., et al. Burnout in European family doctors: The EGPRN study. *Fam. Pract.* 2008;25:245-265. doi: 10.1093/fampra/cmn038.
- Simron Singh, Ashley Farrelly, Catherine Chan, Brett Nicholls, Narges Nazeri-Rad, Daniela Bellicoso, Andrea Eisen, Conrad B. Falkson, Colleen Fox, Claire Holloway, Erin Kennedy, Robin McLeod, David Rothenberger, Maureen Trudeau, Tait Shanafelt, and Glenn Bauman. *JCO Oncology Practice* 2022 18:1, e60-e71
- E Dehon, K S. Zachrison, J P Jones, et al. Sources of Distress and Coping Strategies Among Emergency Physicians During COVID-19. *WestJEM*, VOLUME 22 ISSUE 6 2021. 10.5811/WESTJEM.2021.9.53406
- Werdecker L, Esch T (2021) Burnout, satisfaction and happiness among German general practitioners (GPs): A cross-sectional survey on health resources and stressors. *PLoS ONE* 16(6): e0253447. <https://doi.org/10.1371/journal.pone.0253447>
- Popa-Velea O, Trutescu C-I, Diaconescu LV. The impact of Balint work on alexithymia, perceived stress, perceived social support and burnout among physicians working in palliative care: a longitudinal study. *Int J Occup Med Environ Health*. 2019; 32:53-63. pmid:30785127