Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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COMMENTARY

The burden of COVID-19 on pharmacists

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ABSTRACT

The unprecedented changes brought about by the global coronavirus disease 2019 (COVID-19) pandemic have had important impacts on society. The pandemic has provided an opportunity to highlight the crucial role pharmacists play in the provision of health care. The critical and unique role of pharmacists in pandemics and other disasters has been highlighted in the past (severe acute respiratory syndrome and Ebola outbreaks) and more recently with reports of the contributions of pharmacists during the global COVID-19 pandemic. Many reports have documented that health care professionals are experiencing significant psychological morbidity as a result of providing essential care and services during the global COVID-19 pandemic. In these reports, pharmacists are not well represented, and, therefore, it is essential to understand the impact of COVID-19 on pharmacists across multiple practice settings. This is particularly true as the experiences of pharmacists working through previous pandemics and disasters, and the associated psychological burden, are likely to offer insights and be useful in supporting the psychological well-being of pharmacists during the global COVID-19 pandemic. Research into the effect of the global COVID-19 pandemic on pharmacists should improve the understanding of the impact and the psychological morbidity associated with their role as frontline health care professionals.

The global coronavirus disease 2019 (COVID-19) pandemic has brought about unprecedented changes in the delivery of health care in which the essential role of the pharmacist has never been more evident. Pharmacists have been consistently working on the frontline during this pandemic, continuing their vital role in supplying medicines and caring for the health needs of the community. Pharmacists believe they have an obligation to provide health services and understand they have an important role to play during the global COVID-19 pandemic.[1] Community pharmacists have been caring directly for a stressed and anxious community who is worried about the supply of their medicines and other essential items.[2] Patients and carers are looking to pharmacists for advice and health care services as their usual access to health care is not possible because of general practitioners closing or working predominately by telehealth but pharmacies remaining open. Hospital pharmacists have held a key role in supporting hospitals and health care organizations in planning for the worst-case scenario, providing advice on supply and product substitutions as well as training and supporting hospitals with a flexible service delivery. Many pharmacists are involved in policy positions providing advice on legislative and technological solutions in the rapidly changing environment to support the supply of medicines. Other pharmacists are teaching and researching, which has included navigating new and uncharted modalities of delivery. Whatever the role, pharmacists have not stopped providing for their community with their clinical skills and knowledge. Their accessibility is an important part of their involvement of delivering health care, in addition to an increasing scope of practice to assist with emergency preparedness and health promotion in the community.[3-5]

The global COVID-19 pandemic is not the first disaster to illustrate the vital role that pharmacists play in such circumstances. The experiences of pharmacists caring for patients with Ebola report changes to their roles and delivery of services, the importance of the pharmacist in community education, and the ability of the profession to remain flexible and

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Key Points

Background:

- Pharmacists are working hard on the frontline to provide care for patients during coronavirus disease 2019 (COVID-19).
- Pharmacists have a unique and important role to play in pandemics and disasters.
- Pharmacists are at risk of burnout and psychological morbidity related to their work.

Findings:

- There is literature available describing the experiences of pharmacists in previous pandemics and disasters that can be used to inform practice during COVID-19.
- This commentary highlights the importance of investigating and reporting the psychological burden that is placed on pharmacists working during COVID-19.

adaptable in the face of uncertainty and changing advice.[6] Pharmacists can play an important role in the various phases of disasters including prevention, preparedness, response, and recovery,[7] and this remains true during COVID-19.[8-10] There have been various papers illustrating the potential role of pharmacists during disasters, which include traditional roles as well as roles that encourage the increasing scope of practice including, for example, continuing to supply chronic medicines without a prescription, educating the community on infection control, preparing hand sanitizer, and vaccinating.[4,11-15] In an effort to support overburdened health care systems and use the accessibility of pharmacies, many countries have implemented legislative changes to support the evolution of pharmacists' roles during these periods, including pharmacists participating in first-responder and other nontraditional roles with other health care providers.[16-18] Reports from China during COVID-19 highlight the increased workload and the importance of the community pharmacists' roles in medication dispensing, referrals and consultations, chronic disease management, patient education, psychological support for the community, and provision of support for COVID-19 related homecare services.[15] Clinical pharmacists working in China during COVID-19 have advised their colleagues around the world to contribute during the COVID-19 pandemic with roles such as guiding the provision of pharmacy services, providing medicines information, contributing to research, performing drug evaluations and writing and reviewing guidelines, providing pharmaceutical care as part of the multidisciplinary team, and providing telehealth and multimedia education using technology.[14] This constantly changing environment, uncertainty, and shifting roles are some of the things creating a high degree of psychological burden associated with the global COVID-19 pandemic.[19] This additional burden must be considered with the high-burnout rates in pharmacists even before the global COVID-19 pandemic. Reports vary in their prevalence rates, with many reporting more than 50% of pharmacists experience burnout,[20-24] similar to rates reported in physicians.[25] One study, which compared pharmacists with other health care providers including physicians and nurses, reported that pharmacists had the highest rates of burnout.[22] Factors associated with burnout for pharmacists include a lack of resources, excessive workloads, inefficient systems, and time pressures, which are similar to the factors associated with physician burnout.[21,25-30]

The global COVID-19 pandemic has caused profound disruption to everyday life and has inflicted additional psychological burden on health care workers.[19,31,32] Although there have been some data highlighting the importance of mental health of health care workers and prioritizing self-care as an important factor in the response to the pandemic,[19,33-35] there has been little evidence to suggest there has been a prioritization of the health and well-being of health care workers during COVID-19, and pharmacists are rarely mentioned in this context.

Previous pandemics can provide insights into the psychological impact of pandemics on frontline health care workers and possible interventions to minimize this burden and can be used to inform strategies during the current COVID-19 pandemic. Studies investigating the psychological impact of working during the severe acute respiratory syndrome and Middle East respiratory syndrome epidemics on health care workers identified specific confounders that are congruent with COVID-19.[34] Issues identified in these previous epidemics that relate to psychological morbidity include a sense of personal danger particularly associated with intense media coverage, uncertainty regarding the virus and rapidly changing recommendations, concern around supply shortages, and a feeling of loneliness and isolation.[36-44] Other factors associated with psychological impact related to natural disasters and pandemics include an increased workload, preparation and recovery activities, and concern for family and friends.[42,45] Interventions reported to help minimize the psychological effects were providing practical advice and approaches to dealing with stress, provisioning flexible support services to be accessed as individually required, being supported to assist with not feeling alone, as well as providing clear communication and collaboration.[37,41] A sense of unity, awareness of infection control, focus on current affairs, and an acceptance of personal risk were also associated with a reduction in negative psychological outcomes.[40,46] Lower reported rates of burnout in medical staff working on the frontline compared with colleagues working in their usual wards have been due to being acknowledged for their contribution, feeling closer to decision makers, and having access to timely information and potentially a greater sense of control.[47] Community pharmacists have described the importance of providing a continued service provision to the community and the increasing responsibility of pharmacies to function as frontline health care facilities when others, such as general practitioners and outpatient clinics were less available. This increase in workload and the general expectation of pharmacists to adapt and broaden their scope and services to meet these demands are overwhelming and daunting for some pharmacists. Leadership and practical guidance are important because a lack of cohesive guidance and decision-making reportedly add to the ambiguity and sense of unknown. Finally, a sense of

"teamness" was considered an important part of pharmacists' experiences in disasters as was personal responsibility, flexibility, and a lack of traditional hierarchy.[48] Because many of the issues for pharmacists working through COVID-19 are similar to those described in previous disasters, we should be turning to the information gained from these events to consider what factors are important to pharmacists and introduce interventions to support them.

The only study to report on the psychological factors affecting pharmacists during COVID-19 investigated the resilience of pharmacists, which is thought to be protective against burnout.[49,50] The factors associated with increased resilience among community pharmacists were predominantly organizational factors including the use of technology, task orientation and structured breaks, and provision of practical guidelines and personal protective equipment.[49] These factors are all potentially manageable interventions at an organizational level, which could protect pharmacists against burnout and therefore reduce psychological morbidity. Moving forward through the pandemic, the opportunity for pharmacists to take on nontraditional roles, and particularly, the important role pharmacists will play in the widespread provision of a vaccine will offer pharmacists a sense of purpose and value.

Understanding the impact of COVID-19 on the psychological well-being of pharmacists broadly both in the community, hospital, and other settings is an important step to supporting pharmacists' well-being. Pharmacists are among the essential health care providers that have remained on the frontline providing services to the community in these times of uncertainty, despite the inherent personal risk. However, there has been limited mention of the pharmacy profession in the advocacy of prioritizing the mental health of health care workers. There must be efforts made to assess the psychological impact on the pharmacy profession and a recognition of the burden placed on pharmacists as a result of their work. A first step would be to measure burnout, likely contributing factors, and possible interventions that might support the profession. This is a matter of critical importance to provide support to pharmacists as they continue to work tirelessly throughout this global COVID-19 pandemic and to better inform and prepare for the future.

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