

Stress, Burnout, Contributions, and Coping Mechanisms of Community Pharmacists in Puerto Rico during the COVID-19 Pandemic

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Objective: To evaluate perceived stress and burnout among community pharmacists and to explore their coping mechanisms and perceived contributions.

Methods: A cross-sectional study among pharmacists in Puerto Rico was conducted during the COVID-19 Pandemic using Cohen's 10-item Perceived Stress Scale and the Oldenburg Burnout Inventory. Open-ended questions explored pharmacists' contributions and coping mechanisms. The survey was distributed via the Puerto Rico Pharmacist Association listserv, social media, and professional chats.

Results: A total of 193 pharmacists were included in the analysis. Eighty-five responded to the open-ended questions, and 150 responded to the 2 scales. Most of the participants were women (82%) with a mean age of 45 years. The mean perceived stress score was 22.0 ± 6.6 , indicating moderate stress levels. While 46.7% exhibited moderate burnout, 25.3% showed high burnout. Female pharmacists had higher stress than male pharmacists (22.61 vs. 18.56, $P < .05$). Pharmacists working in chain pharmacies had higher stress and burnout levels compared to those working in independent pharmacies (24.40 vs. 20.48 and 46.87 vs. 40.24, respectively; $P < .05$). Pharmacists' greatest contributions during the pandemic were ensuring continuity of care and providing pharmaceutical services and education. Although they experienced a sense of underappreciation, coping mechanisms and institutional adaptation strategies helped them overcome the broader challenges of the pandemic.

Conclusion: Community pharmacists, particularly those in chain pharmacies and those who were female, reported moderate stress and moderate–high burnout. It is necessary to explore the reasons for these disparities. This study highlights the importance of allocating resources to improve and protect the well-being of pharmacists.

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Pharmacists played a crucial role during the COVID-19 pandemic by maintaining medication therapies, educating patients, and offering testing, treatment, and vaccination services (1). This included pharmacists in Puerto Rico. Oral antivirals for COVID-19 were available in more than 540 pharmacies on the island (2). By July 2023, there were 652 vaccination centers across the island, of which 269 were chain or independent pharmacies (2). A prior cross-sectional study conducted by our team in Puerto Rico explored the willingness of community pharmacists to test for, treat, and immunize for COVID-19. We found that one of their major roles during the COVID-19 pandemic was ensuring the continuity of care and providing patient education (3). In the same study, participants reported through open-ended questions that the pandemic's uncertainty, the news, personal issues, and increased workloads had negatively impacted their mental health (3). Based on our prior results we chose to further investigate stress and burnout among community pharmacists in Puerto Rico, areas that had yet to be explored.

Pharmacists are highly qualified healthcare professionals who serve as vaccine distributors, educators, facilitators, and

administrators. They have improved vaccine-related health literacy and vaccination coverage rates and removed barriers to optimal healthcare (4). Community pharmacists offer medication therapy management, chronic disease management, self-care recommendations, vaccinations, point-of-care screening, testing, and adherence support, among other services (5).

The COVID-19 pandemic demonstrated the impact of this profession on public health efforts (6). Since the pandemic began, pharmacists quickly adjusted their services to keep providing care, showing dedication to their patients and profession. Despite their commitment to quality care, they were

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not immune to the challenges faced by the general population, including infection and death. They also faced increased workloads, staff shortages, longer work hours, and the expansion of their roles (3,7).

The World Health Organization has defined stress as a state of worry or mental tension caused by a difficult situation (8). Long-term stress can lead to burnout. Burnout has been included in the International Classification of Disease 11th revision and defined as an occupational phenomenon resulting from chronic workplace stress that has not been successfully managed (9). Healthcare occupational burnout has existed for a long time, and several studies have shown that it increased during the COVID-19 pandemic (10–13).

Coping has been defined by Lazarus RS and Folkman S (14) as a “process of attempting to manage the demands created by stressful events that are appraised as taxing or exceeding a person’s resources.” Coping mechanisms seek to manage or mitigate the impact of a stressful situation or event. These coping mechanisms can be either adaptive or maladaptive (15). Maladaptive coping reflects an individual’s reduced capacity to deal with adversity, whereas adaptive coping reflects the opposite (16). Coping mechanisms employed by pharmacists during the COVID-19 pandemic were crucial to overcome, adapt to, and continue to provide services in the face of the daily challenges imposed by the pandemic (17).

A study conducted among community pharmacists in Puerto Rico found that these pharmacists had self-reported mental health concerns in open-ended comments, expressing feeling stressed, overworked, and worried about the constant risk of exposure, both to themselves and their loved ones (7). Therefore, this study focused on evaluating perceived stress and burnout among community pharmacists in Puerto Rico during the COVID-19 pandemic using validated scales. It also explored community pharmacists’ coping mechanisms and contributions during the pandemic.

Methods

A cross-sectional study was conducted to explore the levels of perceived stress and burnout among community pharmacists in Puerto Rico during the COVID-19 pandemic. An online survey with closed and open-ended questions was developed based on published surveys evaluating pharmacists’ roles in pandemics and on the joint policy recommendations included in the document *Pharmacists as Front-Line Responders for COVID-19 Patient Care. Executive Summary* (18). Study participants completed the Perceived Stress Scale (PSS-10) and the Oldenburg Burnout Inventory (OLBI). The PSS-10, a 10-item questionnaire developed by Cohen, Kamarck, and Mermelstein (19), is widely used to assess stress levels in individuals older than 12 years. This scale was adapted to include the phrase “Due to the Covid-19 pandemic...” in each item. Individual scores on the PSS-10 can range from 0 to 40, with higher scores indicating higher perceived stress. Scores from 0 to 13 indicate low perceived stress, 14 to 26 moderate stress, and 27 to 40 high stress. The OLBI is a 16-item self-report measure for assessing the severity of work-related burnout, with scores ranging from 16 to 64. It contains 2 subscales,

one of which measures exhaustion and the other, disengagement. These subscales have scores ranging from 1 to 4 for each item, resulting in subscale scores ranging from 8 to 32. This scale does not have standardized cutoff points. Therefore, threshold values for classifying burnout, exhaustion, and disengagement into “high,” “moderate,” and “low” levels were calculated based on the 25th, 50th, and 75th percentiles. Three open-ended questions were also included: 1) What do you feel has been your greatest contribution during the COVID-19 pandemic? 2) What strategies have you implemented to cope with the COVID-19 pandemic? and 3) Anything else that you would like to add? Pilot testing of the survey was conducted with 5 community pharmacists. Their feedback was used to update survey questions prior to the survey’s dissemination.

Using convenience sampling, the survey was sent weekly via REDCap to all the licensed community pharmacists ($N = 1,200$) in Puerto Rico over 4 weeks, from November 19 to December 17, 2021. Pharmacists who reported working part-time or full-time in the community setting were included. Pharmacists who did not work in a community setting were excluded. The survey was distributed via the Puerto Rico Pharmacist Association email listserv, social media, and pharmacists’ professional chats. The study was approved by the institutional review board at Nova Southeastern University.

Data analysis

Quantitative data analysis

Descriptive statistics were used to assess participant responses. Comparisons of perceived stress and burnout levels were conducted across the following variables: age, sex, position/role (e.g., staff, manager), community pharmacy setting (e.g., chain vs. independent), average hours worked, and prescription volume. Independent-samples t-tests were used to determine whether there were statistically significant differences in stress and burnout scores between groups. Associations between participants’ levels of perceived stress and burnout were also examined.

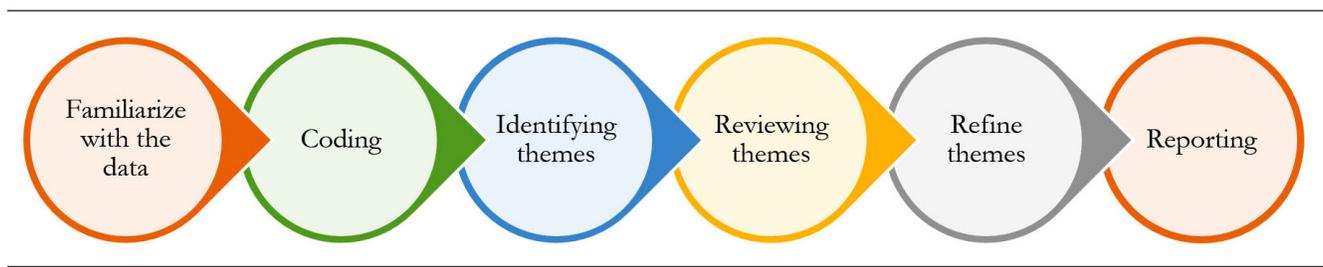
Higher scores on the PSS-10 and OLBI scales indicate greater levels of burnout and stress, respectively. Statistical significance was defined as $P < .05$. All analyses were performed using SPSS version 29.0.

Qualitative data analysis

The open-ended questions were analyzed following an inductive thematic analysis. This approach aimed to identify, analyze, and report patterns within the data (20). Two of the authors (G.S.S. and T.D.) followed the steps proposed by Braun and Clarke: 1) familiarize with the data, 2) coding, 3) identifying themes, 4) reviewing themes, 5) refining themes, and 6) reporting.

Unidentifiable data from REDCap were exported to a PDF file and analyzed by the authors, who identified initial patterns. T.D. generated initial codes from the 3 open-ended questions, which were reviewed and approved by the first author. Patterns identified through coding were used to form categories and themes, which were then verified by each author. Discrepancies were resolved, and codes and themes were subsequently refined for clarity.

Figure 1. Thematic analysis step proposed by Braun and Clarke



Results

Quantitative results

A total of 210 participants completed the online survey. Participants who were not employed as community pharmacists at the time of the survey were excluded from the sample ($n = 17$). A total of 193 pharmacists were included in the analysis. The mean age was 45 years, and most of the respondents were women (82%). The ages ranged from 25 to 75 years. Forty-four percent worked for chain pharmacies, and 56% for independent community pharmacies. Regarding their positions, 37.7% were staff pharmacists, 12.6% floating pharmacists, 26.8% pharmacy managers, and 21.9% pharmacy owners. Most of the responding pharmacists reported either working full time (30 to 40 hours per week, 44.8%) or working more than 40 hours per week (40.3%), with a mean of 40.50 hours worked per week. Only 14.9% of the respondents worked part-time (less than 30 hours per week). Additionally, 75.9% of the pharmacists reported filling more than 200 prescriptions per day; 9.9% of these indicated filling more than 600. Almost all the community pharmacists (92.4%) felt that their workload increased because of the pandemic, and 72.7% reported feeling somewhat or very worried about contracting COVID-19 at their worksite. In addition, 30.5% reported that they started performing COVID-19 testing, while only 16.5% reported having been very willing to perform this test with proper training and personal protective equipment. The participants were also asked about their willingness to treat patients for COVID-19. Almost two-thirds (65%) indicated that they had been willing to administer, based on test results, COVID-19 treatment at their pharmacies, but only 22.7% reported administering treatment at their worksites (Table 1).

One hundred and fifty participants ($n = 150$) completed the PSS-10 and OLBI scales. The mean scores for perceived stress and burnout were 22.0 ± 6.6 and 43.1 ± 8.1 ($n = 150$), respectively. This indicates a moderate level of perceived stress among the participating community pharmacists. Additionally, the mean score for the disengagement subscale was 20.1 ± 4.6 , and 22.9 ± 4.3 for the exhaustion scale (Table 2).

The threshold values returned for the total OLBI scale were 39 and 48. For the disengagement and exhaustion subscales, the thresholds were 18 and 22, and 21 and 25, respectively. Consequently, 46.7% of the community pharmacists in our study exhibited moderate levels of burnout, while 25.3% displayed high levels. Furthermore, 32.0% scored high in disengagement and 28.4% scored high in exhaustion (Table 3).

Table 1. Sociodemographic and work condition characteristics ($n = 193$)

Age, years Mean: 45 Range: 25–75	n	%
Sex		
Female	150	82.0
Male	30	16.4
Prefer not to disclose	3	1.6
Position		
Staff	69	37.7
Floating	23	12.6
Manager	49	26.8
Owner	40	21.9
Other	2	1.1
Work hours		
Part-time	27	14.9
Full-time	81	44.8
Overtime*	73	40.3
Prescription volume (per day)		
<100	9	4.9
100–200	35	19.2
201–400	68	37.4
401–600	52	28.6
>600	18	9.9
Pandemic impact on workload		
Increased	122	92.4
Remained the same	8	6.1
Decreased	2	1.5
Concerned about contracting COVID-19		
Not at all	8	6.1
Not really	22	16.7
Undecided	6	4.5
Somewhat	50	37.9
Very	46	34.8
COVID-19 testing		
Started	40	30.5
Not started	91	69.5
COVID-19 treatment		
Started	30	22.7
Not started	102	77.3

*Overtime is defined as additional hours worked beyond a full-time schedule.

Female community pharmacists ($n = 120$) reported higher levels of perceived stress compared to male community pharmacists ($n = 27$), with mean scores of 22.61 and 18.56, respectively ($P < .05$). Similarly, chain pharmacists ($n = 62$) demonstrated higher levels of both perceived stress and burnout compared to those working in independent community pharmacies ($n = 80$), with mean stress scores of 24.40 vs. 20.48 and burnout scores of 46.87 vs. 40.24. These differences in stress and burnout scores between chain and independent community pharmacists, as well as between female and male pharmacists, were significant ($P < .05$). The mean scores for burnout and stress for pharmacists working full-time were higher compared to those of pharmacists working part-time (43.59 vs. 40.09 and 22.34 vs. 20.00, respectively); however, these differences were not significant ($P = .603$ and $P = .904$, respectively). Even though most of the participating pharmacists reported having felt worried about contracting COVID-19, there were no differences in stress or burnout when comparing those who performed tests, administered treatment, and/or immunized patients to those who did not.

Table 2. PSS and OLBI Results ($n = 150$)

	Mean	SD
PSS Total	22.0	6.6
OLBI Total	43.1	8.1
Disengagement subscale	20.1	4.6
Exhaustion subscale	22.9	4.3

Abbreviations: OLBI, Oldenburg Burnout Inventory; PSS, Perceived Stress Scale; SD, standard deviation.

Table 3. Burnout, disengagement, and exhaustion levels measured by the OLBI ($n = 150$)

	Score range	Frequency	Percentage
OLBI Total			
Low	<39	42	28.0
Moderate	39–48	70	46.7
High	>48	38	25.3
Disengagement subscale			
Low	<18	44	29.3
Moderate	18–22	58	38.7
High	>22	48	32.0
Exhaustion subscale			
Low	<21	43	28.7
Moderate	21–25	64	42.7
High	>25	43	28.4

Qualitative results

Of the 193 participants included in the final analysis, 44% ($n = 85$) answered at least 1 of the open-ended questions. The demographics of these 85 participants were comparable to those of the entire study sample.

After inductive thematic analysis, 34 codes were identified and later categorized into 3 main themes: the impact of the COVID-19 pandemic, coping mechanisms, and contributions to the pharmacy profession. The 3 main themes were used to organize the presentation of qualitative results, and actual quotes from participants' responses are presented to support the findings.

Impact of the COVID-19 pandemic

Among our participants, the impact of COVID-19 was evident, and their narratives revealed the toll it took on them. One of our participants shared:

It's exhausting to manage all the things, prescriptions, consults, phone, COVID testing, immunization... happening at the same time can result in dispensing errors and lack of engagement. (female pharmacy manager, 37 years old)

A common sentiment was the feeling of being unappreciated. They mentioned that they were not recognized as healthcare professionals and lacked recognition from the local government.

Hate the fact that we have been there at the forefront since DAY 1 and immunized so many people, and the government doesn't recognize us as healthcare professionals. Really frustrated. (female staff pharmacist, 40 years old)

Some of our study participants highlighted how working conditions in community pharmacies have become a barrier to practice. One of our respondents shared her frustration:

The community [pharmacy] environment is not what it used to be. Work has tripled, with less staff and work hours. They keep enforcing metrics and asking more and more without even raising the pay rates. Patients have been less [tolerant] of having to wait hours in line for a vaccine when there's only 1 pharmacist working, trying to verify prescriptions and vaccinate at the same time. It's tiring, prone to errors, and incredibly stressful. Definitely not worth putting my mental health at risk. I love my profession but hate my work environment. (female floating pharmacist, 29 years old)

Coping mechanisms

At the institutional level, the most common adaptation strategies implemented were the use of masks and hand sanitizer, social distancing, and the use of personal protective equipment by employees. Two participants shared:

Temperature screening, hand sanitizer, face masks, and social distancing. The vaccination of all the staff. Increased home-delivered medication. (female staff pharmacist, 51 years old)

...improving our communication and encouraging the support of each other, recognizing the fatigue [of employees], and safeguarding their family time by making changes in their working hours. (female pharmacy owner, 59 years-old).

At the personal level, participants implemented an array of protective behaviors and strategies that went from "watching more Netflix" to adopting online payments and getting vaccinated. One of our participants shared:

My family and I have been vaccinated, kept our distance at the beginning of the pandemic... After work or after we came from the outside into the house, we went directly to take our baths before having

contact between ourselves. Then we kept to ourselves, minimizing going out. I have used online shopping and delivery services for many things. I pay my utilities online to minimize exposure. We always wear masks and have alcohol or hand sanitizers available. I love reading, so instead of going out to distract myself, I have increased my reading. (female floating pharmacist, 35 years old).

Contributions to the pharmacy profession

The majority agreed that the most valuable contribution during the COVID-19 pandemic was providing education.

We created awareness about COVID-19, with information about procedures, risk factors, signs and symptoms. (female staff pharmacist, 51 years old)

Another participant highlighted that during the emergency, she and her colleagues continued providing services, guaranteeing the continuity of care.

I think that my greatest contribution was that our team continued working without stopping during the pandemic. (female pharmacy owner, 50 years old)

Others described how, among the pharmacy services provided, vaccination efforts were an area in which they played a vital role in impacting many lives, having been responsible for administering thousands of doses in the community.

Vaccinating about 20,000 patients at my pharmacy. (male pharmacy manager, 39 years old)

Some of our study participants agreed that, in some cases, a patient needed only their support and understanding. Some participants shared that they spent most of their time providing patient support.

...calming them [the patients] amongst all this chaos has been the highlight of my days. (female floating pharmacist, 29 years old).

Discussion

In Puerto Rico, community pharmacists played an important role during the COVID-19 pandemic (1). Participating in vaccination efforts was one of their greatest contributions during the pandemic, along with educating their patients about COVID-19. In this study, we aimed to evaluate the perceived stress and burnout of community pharmacists during this time.

Stress

In the general population, stress levels among women have been reported to be higher than those among men (21). Studies in the United States and France also found that female pharmacists self-reported higher levels of stress during the pandemic (22,23). Other studies identified being female as a risk factor for burnout, and this coincides with our study findings (24,25). Attention should be given to sex-based differences regarding stress and burnout, because despite the fact that men might be underrepresented, women account for approximately 62% to 75% of pharmacists in the United States (26).

Similar to what our study found, a study of community pharmacists in Connecticut found that self-reported levels of stress

during the pandemic were higher among those working in chain community pharmacies than among those working in independent pharmacies (22). References to working with fewer staff and meeting company metrics were also made in responses to our open-ended questions. Additional factors such as workload, lack of autonomy, regulatory burdens, and staff and medication shortages have been identified in the literature as contributing to a lack of well-being at work (27). The COVID-19 pandemic exacerbated these factors, and they need to be addressed, primarily via legislation, to ensure safe working conditions that protect pharmacists' well-being and, consequently, that of the patients they serve.

Most of our participants reported an increase in workload due to the COVID-19 pandemic, which was evident from their responses to the open-ended questions. They gave vaccinations, provided education and counseling, and tested for COVID-19, while also managing regular prescriptions.

Burnout

Burnout represents a risk for patients and the profession. Rates of burnout among pharmacists increased during the COVID-19 pandemic in 2020 and subsequently stabilized at a high level (10). Pharmacists experiencing burnout were more prone to making medication-related errors (28,29). Many of our participants expressed concern about making a dispensing error due to feeling overwhelmed by the amount of work and the number of duties they needed to complete. Some study participants highlighted how they loved their profession but "hated" the work environment in which they practiced, feeling that their mental health was being compromised.

Disengagement reflects an individual's sense of separation from their work in terms of involvement and enthusiasm, while exhaustion is a prominent component of burnout, as it was among our participants. Our findings revealed significant levels of burnout among our sample of community pharmacists. The high average scores on these subscales reveal that occupational health is an area of concern for these professionals. These findings may be associated with the stress related to the then-ongoing COVID-19 pandemic, as has been indicated by other survey responses.

Factors such as working full-time/longer hours per week, high prescription/patient volumes, increased workload, too many non-clinical/administrative duties, and lack of appreciation by colleagues for professional contributions have been associated with burnout (10). These factors correlate with our study findings; most of our participants reported feeling overworked by the increased demand caused by COVID-19, and those working full-time also reported higher levels of stress and burnout.

Healthcare professionals who are exposed to traumatic and stressful events, such as the COVID-19 pandemic, can develop burnout stress disorders and, potentially, posttraumatic stress disorder (PTSD) (30). Previous studies show that during the COVID-19 pandemic 56.6% of Spanish health workers presented PTSD symptoms, 58.6% reported an anxiety disorder, 46% reported a depressive disorder, and 41% reported feeling emotionally drained (31).

Addressing the causes associated with community pharmacists' stress and burnout is imperative. As mentioned before, most

of the associated factors are modifiable, but institutional and organizational willingness is necessary to effect change. Recommendations for action revolve around ensuring a work-life balance. Such a balance can be achieved by granting more flexibility in the work schedule. Fostering self-care and mental health initiatives is essential and can be accomplished by providing coverage for comprehensive healthcare or medical appointments and ensuring the availability of protective equipment at work.

Impact of the COVID-19 pandemic and coping mechanisms

The COVID-19 pandemic took a heavy toll on our study participants, and some even began to consider the community pharmacy environment unpleasant, describing it as “tiring, error inducing, and incredibly stressful.” This perception is similar to that expressed in the United Kingdom by pharmacists working in different settings during the COVID-19 pandemic, some of whom reported struggling with their well-being and feeling emotionally drained (29). In Australia, a study conducted by Shahin et al. found that feeling underappreciated and considering the work environment as “not a safe place” were the main barriers to seeking help for work-related stress (32). Another study reported that inefficient work environments resulted in increased work-related stress (33).

In our study, all the participants reported using adaptive coping mechanisms at both the individual and institutional levels to overcome the challenges posed by the COVID-19 pandemic. At the institutional level, some of the coping strategies and institutional measures included the use of personal protective equipment, improved communication among staff, and changes to shift schedules to prioritize family time. These measures helped participants manage difficulties during the pandemic. On a personal level, participants mentioned various precautions taken to protect their loved ones, such as getting vaccinated, showering after returning home from work, utilizing online services, and dedicating more time to reading. Another study found that the most frequent coping mechanisms employed by the participating pharmacists were adaptive, such as taking a leave of absence, spending time with family, friends, or colleagues, and spending time with pets (32).

Contributions to the pharmacy profession

Many of our study participants emphasized that their significant contributions to the pharmacy profession included ensuring continuity of care, providing education, administering vaccinations, and offering patient support during difficult times. These contributions align with existing literature. A comprehensive review exploring the global contributions of pharmacists revealed that they served as the first point of contact for many patients (34). Pharmacists educated the public about COVID-19 symptoms, played a pivotal role in administering vaccines, and provided psychological support to vulnerable populations—all while ensuring continuity of care (34).

Study limitations

This study had various limitations, including a response rate of 18% (210 out of 1,200 participants, most of whom were female). Although this limited our ability to extrapolate to male

pharmacists, it was a direct reflection of the current female majority within the pharmacy profession in Puerto Rico.

The cross-sectional design could not assess changes over time or establish causality. In addition, the use of self-reported responses obtained through a survey may have introduced a response bias. Since this study was specific to community pharmacists working on an island with a unique healthcare system and challenges, generalizability and representation in other jurisdictions was limited. However, to our knowledge, this was the first study to use 2 validated questionnaires to assess stress and burnout experienced by community pharmacists during the COVID-19 pandemic in Puerto Rico. Future studies should aim to ensure a balance between sexes and may consider using a qualitative methodology with in-depth interviews or focus groups, which would provide more comprehensive details of the pharmacists' experiences.

Conclusion

This study highlights the impact of the COVID-19 pandemic on community pharmacists, revealing elevated levels of stress and burnout among female pharmacists in particular and among those working in chain-pharmacy settings. More research should focus on exploring the reasons behind these disparities to provide specific interventions to address them. Increased workload, lack of autonomy, and insufficient institutional support exacerbated these challenges. These factors compromised the participating pharmacists' well-being and heightened their fear of committing a medication error. The qualitative component of the study revealed that, despite these adversities, pharmacists demonstrated resilience through adaptive coping mechanisms, making substantial contributions to public health.

The findings underscore the urgent need for systemic changes to support community pharmacists. Addressing modifiable risk factors—such as workload, staffing, and acknowledgement—requires institutional commitment and legislative action. Promoting the provision of mental health resources, ensuring flexible scheduling, and encouraging a culture of appreciation can foster a healthier work environment. The local government and professional organizations should use this experience to provide resources as well as support that enhances community pharmacists' well-being and ensures the safe and accessible delivery of care during public health emergencies.

Resumen

Objetivo: Los farmacéuticos comunitarios fueron vitales en la pandemia de COVID-19, enfrentando desafíos personales y profesionales. Explorar el estrés percibido y el agotamiento de los farmacéuticos comunitarios en Puerto Rico durante la pandemia de COVID-19. También exploramos sus mecanismos de afrontamiento y contribuciones percibidas. Métodos: Se distribuyó una encuesta en línea utilizando la Escala de Estrés Percibido de Cohen y el Inventario de Agotamiento de Oldenburg y preguntas abiertas para explorar contribuciones de los farmacéuticos y mecanismos de defensa empleados durante la pandemia. El análisis incluyó 193 farmacéuticos. Ochenta y cinco respondieron a las preguntas abiertas y 150

a ambas escalas. Resultados: La mayoría eran mujeres (82%) con una edad media de 45 años. La puntuación media de estrés fue 22.0 ± 6.6 , clasificado como moderado. El 46.7% y 25.3% presentó agotamiento moderado y alto, respectivamente. Las mujeres tenían más estrés que los hombres (22.61 vs. 18.56, $P < .05$). Aquellos trabajando en farmacias de cadena tenían mayor estrés (24.40 vs. 20.48, $P < .05$) y agotamiento (46.87 vs. 40.24, $P < .05$) que aquellos en farmacias independientes. Las mayores contribuciones fueron asegurar la continuidad y prestación de servicios farmacéuticos y brindar educación. Las estrategias de adaptación implementadas a nivel personal e institucional ayudaron a superar los desafíos de la pandemia. Sin embargo, reportaron sentirse desvalorizados. Conclusión: Los farmacéuticos, especialmente los de farmacias de cadena y las mujeres, informaron un estrés moderado y un agotamiento moderado-alto. Es necesario explorar las razones de estas disparidades. Este estudio destaca la importancia de asignar recursos para mejorar y proteger el bienestar de los farmacéuticos.

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