COVID-19 and Burnout among Community Pharmacists in the West Bank – Palestine

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COVID-19 and Burnout among Community Pharmacists in the West Bank – Palestine

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COVID-19 and Burnout among Community Pharmacists in the West Bank – Palestine

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Abstract

The coronavirus disease 2019 (COVID-19) pandemic had a strong impact on the physical and mental well-being of healthcare workers. However, the focus has been directed towards nurses and physicians compared to pharmacists. Here, the researchers investigated the prevalence of burnout among community pharmacists in the West Bank – Palestine during the pandemic and the associated COVID-19 factors. The study was conducted using a written questionnaire and the sample included a total of 70 pharmacists. The results showed a burnout prevalence of 45.7% with work-related burnout having the highest impact on both males (50%) and females (54.8%). The level of burnout was independent from demographic factors including age, work experience, gender and job position. High burnout levels were associated with having a relative or friend infected with COVID-19, inadequate availability of preventative measures, increased workload and not receiving enough emotional support, but not with financial distress or fears of contracting COVID-19. The results indicated that community pharmacists as primary healthcare providers and healthcare workers were affected in terms of burnout during the COVID-19 pandemic. Various factors contributing to burnout were identified, too.

Keywords: Coronavirus, Pandemic, Mental Health, Healthcare Provider, Pharmacy.

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1. Introduction

The coronavirus disease 2019 (COVID-19), caused by the SARS-CoV-2 virus, was first reported as an outbreak at the end of 2019 (Wang et al., 2020) and declared as a global pandemic by the World Health Organization (WHO) in March 2020 (WHO, 2020). The COVID-19 pandemic had a strong impact on physical and mental well-being due to many factors including health concerns, lockdown and quarantine, travel restrictions, financial distress and other lifestyle changes (Vindegaard and Benros, 2020).

Frontline healthcare workers were the first responders to the pandemic, particularly physicians and nurses (Shaukat et al., 2020; Vanhaecht et al., 2021). Among primary healthcare providers, in direct contact with patients, were community pharmacists who had a significant role in the pandemic being the most accessible healthcare providers to the public (Cadogan and Hughes, 2021). Many occupational challenges were faced by community pharmacists during the COVID-19 pandemic as a direct result of their profession. These challenges ranged from prevention of the infection and providing the patients with due care to medicine supply management and coping with rapidly changing service provision techniques (Hayden and Parkin, 2020; Koster et al., 2021). Consequently, prolonged stress due to excessive physical and mental demand could lead to burnout, which was especially prevalent in medical professionals even prior to the pandemic (Ptacek et al., 2013). Stress and burnout are not analogous although some use them interchangeably (Pines and Keinan, 2005). Burnout denotes a state of emotional exhaustion with psychological and physical ramifications, which may overlap with depression (Maslach et al., 2001; Bianchi et al., 2015).

However, little is mentioned about the community pharmacists' burnout during COVID-19, the impact of which differs between various regions, populations and age groups (Sharif et al., 2021; Varma et al., 2021; Wang et al., 2021). Therefore, this study aims to assess burnout levels among community pharmacists in West Bank – Palestine during the pandemic and associated COVID-19 factors, which could help to identify areas for future improvement.
2. Methods

2.1 Study sample and procedures

The study sample included 70 community pharmacists in the West Bank – Palestine from over 60 different pharmacies distributed across the West Bank cities. All participants (i.e. inclusion criteria) had a minimum of BSc degrees in pharmacy, worked during the COVID-19 pandemic and were not tested positive for COVID-19. The participants’ demographics are summarized in Table 1. The study was performed using English printed questionnaire and filled by the participants during working hours. The study was conducted during June and July 2021, when physical distancing was eased.

The questionnaire included three main categories: demographics, burnout assessment and stress-related COVID-19 factors. The aim of the study was explained, the survey included a consent that no personal identifying information would be requested and the collected data would only be used for scientific research purposes. Participation was voluntary and the participants were not paid or given any form of compensation. The study was conducted with strict adherence to the guidelines of the Palestinian Handbook of Scientific Research Ethics and the Declaration of Helsinki in relation to anonymity, voluntary participation and data protection.

2.2 Assessment of burnout

The burnout level was assessed using the Copenhagen Burnout Inventory (CBI) with a total of 19 questions (Kristensen et al., 2005). The assessment covered the three main categories of burnout: personal (6 questions), work-related (7 questions) and client-related burnout (6 questions). Each burnout question was followed by the following options: “Always” or “To a very high degree” scoring 100%, “Often” or “To a high degree” scoring 75%, “Sometimes” or “Somewhat” scoring 50%, “Seldom” or “To a low degree” scoring 25% and “Never/Almost never” or “To a very low degree” scoring 0%. Therefore, the range of the means of the burnout scores is 0-100%. The means and standard deviations (SD) of the answers were calculated for each question/participant for each of the three categories. The overall mean was the total burnout score. More specifically, a score above a cut-off value of 50% was considered a high burnout level, while a score of 50% or less was considered a low burnout level.
2.3 Assessment of COVID-19 factors

A total of 6 questions relating to COVID-19 effects on physical and psychological stress were used to assess the impact of COVID-19 on burnout level. That is, the participants were asked whether: a relative or friend was infected (tested positive for COVID-19), personal protective equipment (PPE, E.g. facemasks and gloves) and preventative measures (E.g. counter glass shields and disinfectants) were adequately available, workload increased during the pandemic (E.g. increased intensity or time of work), they experienced financial distress (actual or potential financial impact), they were afraid of contracting COVID-19 due to working as community pharmacists and they feel they received adequate emotional support from family members and friends. The frequencies of participants’ responses were used to determine the presence, or lack of significant associations between aforementioned COVID-19 stress factors and the burnout level.

2.4 Statistical Analysis

Data analysis was conducted using JASP software (Version 0.14.1, www.jasp-stats.org). Demographic factors were compared between male and female participants using either t-test (for age and work experience) or Chi-square test (for job description and position). The reliability of CBI questionnaire in the sample was assessed using the single-test reliability analysis and showed a Cronbach's α of 0.92 (95% CI: 0.888-0.944). The dependence between demographic and COVID-19 factors and total burnout level was tested using Chi-square test to determine which variables were associated with high or low burnout level. Spearman’s rank correlation was used to test whether age or work experience was correlated with the total burnout score. Mann Whitney U-test was used to assess if the rank distribution of the total burnout scores differed based on gender as a grouping variable. For all statistical tests, a P value less than 0.05 was considered significant (*).

3. Results

3.1 Demographics

The sample consisted of 28 (40%) males and 42 (60%) females with a mean ± SD age of 30.5 ± 7.4 years, which ranged from 22 to 53 years of age. Female participants had a lower mean age of 28.7 ± 5.52 years than males 33.1 ± 8.96 years (P<0.05). Accordingly, the work experience in pharmacy was higher for males at 8.1 ± 7.6 years than females at 5.1 ± 3.6 years (P<0.05). On the other hand, there was no difference between the two gender groups based on job description and position (Table1).
The majority of participants (74.3%) were working as full-time pharmacists and a higher percentage of participants (58.6%) were in a management position for both males (64.3%) and females (54.8%).

Table 1: Demographics of Participant.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Overall n = 70</th>
<th>Males n = 28</th>
<th>Females n = 42</th>
<th>P*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years), mean ± SD</td>
<td>30.5 ± 7.4</td>
<td>33.1 ± 8.96</td>
<td>28.7 ± 5.52</td>
<td>0.014*</td>
</tr>
<tr>
<td>Work experience (years), mean ± SD</td>
<td>6.3 ± 5.7</td>
<td>8.1 ± 7.6</td>
<td>5.1 ± 3.6</td>
<td>0.03*</td>
</tr>
<tr>
<td>Job description, n (%)</td>
<td></td>
<td></td>
<td></td>
<td>0.655</td>
</tr>
<tr>
<td>Full time</td>
<td>52 (74.3%)</td>
<td>20 (71.4%)</td>
<td>32 (76.2%)</td>
<td></td>
</tr>
<tr>
<td>Part time</td>
<td>18 (25.7%)</td>
<td>8 (28.6%)</td>
<td>10 (23.8%)</td>
<td></td>
</tr>
<tr>
<td>Position, n (%)</td>
<td></td>
<td></td>
<td></td>
<td>0.428</td>
</tr>
<tr>
<td>Owner/Manager</td>
<td>41 (58.6%)</td>
<td>18 (64.3%)</td>
<td>23 (54.8%)</td>
<td></td>
</tr>
<tr>
<td>Staff</td>
<td>29 (41.4%)</td>
<td>10 (35.7%)</td>
<td>19 (45.2%)</td>
<td></td>
</tr>
</tbody>
</table>

* Derived from t-test (age/experience) and Chi-square test (job description/position).

3.2 Levels of Burnout

The overall mean ± SD of total burnout score for all participants was 46.7% ± 17.3 with a higher score for females 49.6% ± 15.8 than males 42.4% ± 18.9; however, the median score difference was statistically insignificant (U=709, P=0.15). The number of participants with a high total burnout level (total score above 50%) was 32 (45.7%), while 38 participants (54.3%) had a low total burnout level. Of the three burnout domains, work-related burnout had the highest score of 49.1% ± 18.6 for all participants including males 44.9% ± 21 and females 52% ± 16.5 (P=0.17). Indeed, 37 (52.9%) participants had a high work-related burnout level compared to 30 (42.9%) and 27 (38.6%) for personal and client-related burnout, respectively (Table 2).
Table 2: Summary of participant burnout scores.

<table>
<thead>
<tr>
<th>Burnout Category</th>
<th>Overall n = 70</th>
<th>Males n = 28</th>
<th>Females n = 42</th>
<th>P*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Males</td>
<td>Females</td>
<td></td>
</tr>
<tr>
<td><strong>Personal Burnout</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Burnout, n (%)</td>
<td>30 (42.9%)</td>
<td>11 (39.3%)</td>
<td>19 (45.2%)</td>
<td>0.622</td>
</tr>
<tr>
<td>Mean Score ± SD</td>
<td>47.9 ± 20</td>
<td>44.5 ± 21</td>
<td>50.1 ± 19.2</td>
<td></td>
</tr>
<tr>
<td><strong>Work-Related Burnout</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Burnout, n (%)</td>
<td>37 (52.9%)</td>
<td>14 (50%)</td>
<td>23 (54.8%)</td>
<td>0.696</td>
</tr>
<tr>
<td>Mean Score ± SD</td>
<td>49.1 ± 18.6</td>
<td>44.9 ± 21</td>
<td>52 ± 16.5</td>
<td></td>
</tr>
<tr>
<td><strong>Client-Related Burnout</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Burnout, n (%)</td>
<td>27 (38.6%)</td>
<td>8 (28.6%)</td>
<td>19 (45.2%)</td>
<td>0.161</td>
</tr>
<tr>
<td>Mean Score ± SD</td>
<td>43.1 ± 21.3</td>
<td>37.7 ± 22.3</td>
<td>46.7 ± 20.1</td>
<td></td>
</tr>
<tr>
<td><strong>Total Average Scores</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Burnout, n (%)</td>
<td>32 (45.7%)</td>
<td>11 (39.3%)</td>
<td>21 (50%)</td>
<td>0.696</td>
</tr>
<tr>
<td>Mean Score ± SD</td>
<td>46.7 ± 17.3</td>
<td>42.3 ± 18.9</td>
<td>49.6 ± 15.8</td>
<td></td>
</tr>
</tbody>
</table>

*P values are derived from Chi-square test (between male and female groups).

Statistical analysis shows no significant differences (P>0.05) between gender groups for rank distribution of scores and ratios of high and low-burnout level participants either in total or domain-specific burnout. In addition, no significant rank correlation was observed between burnout scores and the age or work experience of participants. Nonetheless, a higher percentage (non-significant) of females exhibiting high burnout levels was observed for personal (45.2%), work-related (54.8%), client-related (45.2%) and total (50%) burnout compared to 39.3%, 50%, 28.6% and 39.3% of males, respectively (Figure1).
In relation to single question scores, the highest score for personal burnout was related to feelings of tiredness for both males, scoring 53.6% ± 25.2, and females, scoring 60.1% ± 20.7. On the other hand, the main complaint of males in work-related burnout was emotional exhaustion with a score of 50.9% ± 31.5, while for females it was the “worn-out” feeling at end of working days with a score of 63.7% ± 24.2. The main complaint in client-related burnout for both genders was the feeling of giving more than getting back with a score of 47.3% ± 28.3 and 57.1% ± 28.8 for males and females, respectively.

3.3 COVID-19 Factors

Regarding stress-related COVID-19 factors, the majority of participants reported that no relative or friend contracted COVID-19 (61.4%), PPE and preventative measures were adequately available (55.7%), did not experience increased workload (58.6%), felt financial distress (58.6%), were moderately afraid of contracting COVID-19 (61.4%) and received moderate emotional support from family and friends (60%).

In relation to burnout, the results showed that increased burnout level was significantly associated with: having a relative or friend infected with COVID-19 ($\chi^2= 7.7754$, $P<0.01$), inadequate availability of PPE and preventative measures ($\chi^2=5.4397$, $P<0.05$),
increased workload ($\chi^2=10.786$, $P<0.01$) and receiving less emotional support from family members and friends ($\chi^2=8.858$, $P<0.05$).

On the other hand, there was no association between total burnout level and financial distress ($\chi^2=0.375$, $P=0.54$) and fear of getting infected with COVID-19 ($\chi^2=0.029$, $P=0.986$). The results are summarized in Table 3. Lastly, there was no association between COVID-19 factors and gender, except for financial distress ($\chi^2=7.693$, $P<0.01$) as a higher ratio of males (78.6%) reported financial distress than females (45.2%).

### Table 3: COVID-19 factors and burnout.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Overall n = 70</th>
<th>High Burnout n = 32</th>
<th>Low Burnout n = 38</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>A relative or friend was infected</td>
<td></td>
<td></td>
<td></td>
<td>0.005*</td>
</tr>
<tr>
<td>Yes</td>
<td>27 (38.6%)</td>
<td>18 (56.2%)</td>
<td>9 (23.7%)</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>43 (61.4%)</td>
<td>14 (43.8%)</td>
<td>29 (76.3%)</td>
<td></td>
</tr>
<tr>
<td>PPE and preventative measures availability</td>
<td></td>
<td></td>
<td></td>
<td>0.02*</td>
</tr>
<tr>
<td>Adequate</td>
<td>39 (55.7%)</td>
<td>13 (40.6%)</td>
<td>26 (68.4%)</td>
<td></td>
</tr>
<tr>
<td>Not enough</td>
<td>31 (44.3%)</td>
<td>19 (59.4%)</td>
<td>12 (31.6%)</td>
<td></td>
</tr>
<tr>
<td>Increased workload</td>
<td></td>
<td></td>
<td></td>
<td>0.001*</td>
</tr>
<tr>
<td>Yes</td>
<td>29 (41.4%)</td>
<td>20 (62.5%)</td>
<td>9 (23.7%)</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>41 (58.6%)</td>
<td>12 (37.5%)</td>
<td>29 (76.3%)</td>
<td></td>
</tr>
<tr>
<td>Financial distress</td>
<td></td>
<td></td>
<td></td>
<td>0.54</td>
</tr>
<tr>
<td>Yes</td>
<td>41 (58.6%)</td>
<td>20 (62.5%)</td>
<td>21 (55.3%)</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>29 (41.4%)</td>
<td>12 (37.5%)</td>
<td>17 (44.7%)</td>
<td></td>
</tr>
<tr>
<td>Afraid of getting COVID-19</td>
<td></td>
<td></td>
<td></td>
<td>0.986</td>
</tr>
<tr>
<td>No</td>
<td>9 (12.9%)</td>
<td>4 (12.5%)</td>
<td>5 (13.2%)</td>
<td></td>
</tr>
<tr>
<td>moderately</td>
<td>43 (61.4%)</td>
<td>20 (62.5%)</td>
<td>23 (60.5%)</td>
<td></td>
</tr>
<tr>
<td>Highly</td>
<td>18 (25.7%)</td>
<td>8 (25%)</td>
<td>10 (26.3%)</td>
<td></td>
</tr>
<tr>
<td>Emotional support from family and friends</td>
<td></td>
<td></td>
<td></td>
<td>0.012*</td>
</tr>
<tr>
<td>None</td>
<td>6 (8.6%)</td>
<td>5 (15.6%)</td>
<td>1 (2.6%)</td>
<td></td>
</tr>
<tr>
<td>moderate</td>
<td>42 (60%)</td>
<td>22 (68.8%)</td>
<td>20 (52.6%)</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>22 (31.4%)</td>
<td>5 (15.6%)</td>
<td>17 (44.7%)</td>
<td></td>
</tr>
</tbody>
</table>

*Statistically significant. PPE: personal protective equipment.
4. Discussion

The results showed that over 40% of the community pharmacists in the sample struggled with a high burnout level during the COVID-19 pandemic. Interestingly, the burnout prevalence was comparable to reported levels in frontline healthcare workers, especially nurses and physicians, who responded to COVID-19 in Japan (Matsuo et al., 2020), Egypt (Abdelhafiz et al., 2020), Belgium (Bruyneel et al., 2021), Malaysia (Roslan et al., 2021), Spain (Torrente et al., 2021), Italy (Naldi et al., 2021), India (Khasne et al., 2020), Greece (Pappa et al., 2021) and United States (Prasad et al., 2021). These results indicated that the community pharmacists as primary healthcare providers were almost equally affected in terms of burnout as other healthcare workers during the COVID-19 pandemic. Indeed, recent studies assessing the impact of COVID-19 on pharmacists from different regions report similar ratios of mental effects, traumatic stress and burnout (Lange et al., 2020; Jones et al., 2021; Jakovljevic et al., 2021).

Based on the participants' demographics, burnout levels were independent from age, work experience, gender, job description and position. Although female participants exhibited slightly higher burnout levels than males across the three burnout domains, the differences were not statistically significant indicating that both genders are affected to a similar degree. However, work-related burnout, relating to community pharmacy profession, was the main contributor for both genders, which was most likely attributable to COVID-19. Accordingly, increased workload during the pandemic had the most significant association with burnout among the assessed COVID-19 factors. This is consistent with previous findings on the significant contribution of increased workload during COVID-19 in terms of stress, intensity and time on burnout among healthcare workers (Lai et al., 2020; Morgantini et al., 2020; Shoja et al., 2020).

The inadequate availability of preventative measures was significantly associated with high burnout; however, concerns of contracting COVID-19 were not. Interestingly, the participants from high burnout and low burnout groups reported nearly identical degrees of concern; thus, fears of being infected with COVID-19 equally affected all community pharmacists in the sample with around 60% moderately concerned and 25% highly concerned. This observation is similar to financial distress; however, financial concerns were significantly higher for males than females. A further indicator of emotional stress due to health concerns was that high emotional support was associated with lower levels of burnout.
This finding supports the recommendations of emotional support to reduce burnout levels among healthcare workers during COVID-19 and even prior to the pandemic (Patel et al., 2018; Wu et al., 2020).

5. Conclusion

In conclusion, the COVID-19 pandemic resulted in emotional and physical exhaustion among the community pharmacists leading to higher burnout levels irrespective of demographic groups. The results recommend further recognition and support for the roles of the community pharmacists in pandemics similar to the primary healthcare providers.

References


COVID-19 and Burnout among…

Amjad Bazzari, Firas Bazzari

وباء كوفيد-19 والإجهاد الوظيفي لدى الصيادلة العاملين في صيدليات المجتمع في الضفة الغربية – فلسطين

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ملخص

إن الانتشار العالمي لوباء فيروس كورونا 2019 (كوفيد-19)، كان له تأثير كبير في الصحة البدنية والعقلية للعاملين في مجال الرعاية الصحية، وقامت عديد من الدراسات على الوباء بتوجيه التركيز على العاملين في القطاعات الصحية الأولية، وتحديدا الأطباء والممرضين.

ويهدف هذا البحث إلى دراسة مدى الإجهاد الوظيفي لدى صيادلة المجتمع في الضفة الغربية خلال الجائحة، والعوامل المتعلقة بكوفيد-19.

وأجريت الدراسة باستخدام استبانة، تم توزيعها على الصيادلة العاملين في صيدليات المجتمع، في مختلف محافظات الضفة الغربية، وتضمنت العينة 70 صيدلياً. وأظهرت نتائج البحث أن ما نسبته 45.7% من صيادلة المجتمع، يعانون من الإجهاد الشديد. وكانت عوامل الإجهاد المتعلقة بالعمل، ذات تأثير ملحوظ في كل من الذكور، بنسبة (50%), والإناث، بنسبة (54.8%). وكان مستوى الإجهاد مستقلًا عن العوامل الديموغرافية، بما في ذلك العمر والخبرة العملية والجنس والرتبة الوظيفية. وارتبطت مستويات الإجهاد المرتبطة بإصابة قريب أو صديق بفيروس كوفيد-19، وعدم توافر التدابير الوقائية الكافية في بيئة العمل، وزيادة عبء العمل، وعدم تلقي الدعم النفسي الكافي، ومستقلة عن حدوث ضائقة مالية، أو الخوف من خطر الإصابة بالمرض.

وعليه، فتشير النتائج إلى تأثير صيادلة المجتمع، بشكل كبير، كغيرهم من العاملين في قطاع الرعاية الصحية، خلال جائحة كوفيد-19، كما أوضحت الدراسة عدداً من العوامل المرتبطة بارتفاع مستوى الإجهاد الوظيفي.

الكلمات الدالة: كوفيد-19، جائحة، الصحة النفسية، مقدمو الرعاية الصحية، الصيدلة.

* الباحث المراسل