

General wellbeing and work impacts among community pharmacists during crisis management

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ABSTRACT

Background. Community pharmacists are highly accessible for advice, as most pharmacies are open long hours and no appointment is needed. Community pharmacists, as essential community health workers, play a critical role in the fight against coronavirus disease 2019 (COVID-19). This study aimed to determine the general wellbeing and work impacts of pharmacists and the factors important for adaptability and resilience during the COVID-19 pandemic. **Methods.** This study adopted a cross-sectional design. Community pharmacists from various professional networks in Australia were invited through emails and social media posts to complete an anonymous online survey during the second wave of the COVID-19 pandemic in Victoria, Australia. **Results.** Sixty-five community pharmacists completed the online survey. The respondents reported fair levels of general wellbeing during the COVID-19 pandemic, with a mean self-related health score of 33.57 (s.d. = 13.19) out of a maximal of 96, despite relatively high levels of job stress and emotional labour. Lower levels of general wellbeing were correlated with higher levels of job stress ($r = 0.645, P < 0.01$) and emotional labour ($r = 0.513, P < 0.01$), and lower levels of occupational self-efficacy ($r = -0.566, P < 0.01$). Leader member exchange was negatively correlated with job stress ($r = -0.419, P < 0.01$) and positively correlated with psychological safety ($r = 0.693, P < 0.01$). The linear regression models showed that female pharmacists had lower occupational self-efficacy ($\beta = -0.286, P = 0.024$), but higher psychological safety ($\beta = 0.234, P = 0.042$). Higher work ability was associated with lower job stress ($\beta = -0.529, P < 0.001$), higher occupational self-efficacy ($\beta = 0.511, P = 0.001$), and poorer self-related health ($\beta = -0.659, P < 0.001$). **Conclusions.** The findings highlight the importance of a supportive work environment in helping community pharmacists to feel psychologically safe and reduce stress during a crisis.

Keywords: community pharmacists, human resource management, leader member exchange, occupational self-efficacy, pandemic, pharmacy services, psychological safety, wellbeing.

Introduction

Although community health workers are integral in communicating basic health literacy information to the public and reducing the burden on health services (Boyce and Katz 2019), studies on the strategies to support this cohort are lacking, especially when they are faced with unprecedented challenges such as the coronavirus disease 2019 (COVID-19) pandemic in 2020.

Consumers trust pharmacists and consider them ‘drug experts’ (Salim and Elgizoli 2016). Moreover, community pharmacists are highly accessible for advice, as most pharmacies are open long hours and no appointment is needed (Eades et al. 2011). Pharmacists, and especially community pharmacists, play a critical role in the fight against COVID-19 (Cadogan and Hughes 2021). This includes supply of personal protection equipment (PPE), provision of continuing care to patients, consumer education, and medication consultation services (Carpenter et al. 2021; Visacri et al. 2021). In addition to the traditional role of dispensing prescriptions and provision of non-prescription

items, community pharmacists frequently provide advice on minor ailments and may offer additional services such as blood pressure monitoring, assisting with management of diabetes, and medication reviews. Sim et al. (2020) note that community pharmacists can provide referral pathways for services provided by other health professionals (such as primary health providers, including general practitioners, infant welfare and community health nurses), including immunisation, diabetes education, lactation consultancy, asthma education, specialised compounding, wound care, and dementia care.

A few recent studies examined the impact of the COVID-19 pandemic on frontline pharmacists and the factors important for adaptability and resilience (Arain et al. 2021; Aruru et al. 2021; Austin and Gregory 2021; Smallwood et al. 2021). A recent study published by Austin and Gregory (2021) showed that strategies such as technology and the provision of PPE and non-physical measures such as the availability of professional guidance were essential for building provider resilience and coping mechanisms during crisis management (Smallwood et al. 2021). Other studies focussed on factors that are important for pharmacists to provide care for others, such as access to infection control measures and provision of PPE. Despite this, little attention to date has been devoted to managerial support needs for community pharmacists (Boyce and Katz 2019; Cadogan and Hughes 2021).

Positive relationships between managers and their staff have been shown to influence employee health outcomes, such as reducing job stress (Malik and Shahabuddin 2015) and increasing wellbeing (Brunetto et al. 2011). Measured in terms of *Leader–Member Exchange* (Dansereau et al. 1975), these relationships act as a buffer in the successful management of work stress, especially during a workplace emergency, such as the urgent response to the widespread COVID-19 pandemic. *Leader–Member Exchange* theory suggests that both leaders and followers develop specific relationships based on their social exchanges, and the quality of these relationships can influence employee outcomes in their workplace (Bauer and Erdogan 2015).

The perception of a supportive work environment can help improve employee wellbeing through a range of mechanisms (Casey et al. 2004). Occupational self-efficacy (OSE), which is an individual's confidence in their own ability to carry out the tasks involved in his or her job (Rigotti et al. 2008), has been identified as an important personal resource that can protect employees from workplace stressors, including emotional labour (EL), and promote wellbeing, even in the face of difficulties (Rigotti et al. 2008). Occupational self-efficacy acts to mediate the relationship between *Leader–Member Exchange* and work performance (Jawahar and Schreurs 2018).

Supportive supervisors are particularly important to employees (Casey et al. 2004). Jawahar and Schreurs (2018) show that both leadership and psychologically safe

workplaces play key roles in creating supportive work environments for employees. Luthans and Avolio (2003) argue that supportive supervision fosters employee optimism regarding future success within the organisation, which in turn may strengthen a desire to develop their current occupational role rather than leaving the organisation (Luthans and Avolio 2003). Meanwhile, psychologically safe workplaces encourage team learning and performance in health care. Edmondson (2018) defined psychological safety (PS) as 'the shared belief among team members that the team is safe for interpersonal risk-taking'; this concept refers to being able to speak freely with relevant ideas, questions and concerns. Moreover, psychological safety is implied to be present when colleagues trust and respect each other and feel able to be honest (Edmondson 2018). Management support also plays an important role in addressing the issue of emotional labour in health care (Karimi et al. 2014), which influence workplace interpersonal reactions and interactions (Morris and Feldman 1996; Elliott 2017). Lee (2021) highlighted the role of psychological safety in the workplace, as it has significant implications on human resources management practices. High psychological safety is associated with feelings of fairness, trust and autonomy. The authors also found that during a crisis, regular communication and feedback are essential, and contribute to the positive perception of interactional fairness between employees and managers (Lee 2021).

Given the challenges that community pharmacists faced with the COVID-19 pandemic in 2020, we assessed the challenges they had in their overall general welfare through different measures, including *Leader–Member Exchange*, self-reported general wellbeing, emotional labour, job stress, psychological safety, and occupational self-efficacy. Emotional labour is likely to be more pronounced during crisis management, leading to job stress and lower perceptions of wellbeing.

Methods

This study was conducted as an anonymous cross-sectional survey distributed to community pharmacists in Australia using Qualtrics (Qualtrics XM) during the COVID-19 pandemic in Australia from 20 September 2020 until 26 October 2020. Email invitations were sent to community pharmacists through various networks, such as professional journals (e.g. *Australian Journal of Pharmacy* and *Pharmacy Daily*) subscribers. Further invitations to the survey were also posted on Facebook group pages and professional organisations; hence, the actual number of potential participants who received the invitation cannot be easily quantified. The researchers only used the networks where pharmacists are the only subscribers. The survey included questions relevant to community pharmacists, and non-community pharmacists were not required to

Table 1. Description of the survey items.

<ul style="list-style-type: none"> • Demographics (age, sex, qualification, first language, employment, length of employment, and work hours)
<ul style="list-style-type: none"> • Workload including scheduled work hours, paid hours and estimated proportion time spent in direct customer interaction
<ul style="list-style-type: none"> • General wellbeing was measured using the General Well-being Questionnaire (GWBQ; Cox <i>et al.</i> 1983). The GWBQ is a 24-item instrument to capture sub-optimal health, using self-reported symptoms of general malaise. Participants rated their status using a five-point frequency scale. A higher score indicates poorer self-reported health
<ul style="list-style-type: none"> • Job stress investigation was measured using the 12 items developed by Parker and DeCotiis (1983). It is developed to identify individuals at risk of being sick-listed due to work related stress. Likert scales were coded on a five-point scale numerical scale from the lowest to the highest attitudinal response. A higher score indicates a higher level of job stress
<ul style="list-style-type: none"> • Emotional labour scale (ELS) was adapted from Brotheridge and Lee (2003). It measures six facets of emotional display in the workplace, including the frequency, intensity and variety of emotional display, the duration of interaction, and surface and deep acting. We used five of the six facets of emotional display in the workplace (frequency × 3 questions, intensity × 2, variety × 3, surface acting × 3 and deep acting × 3), measured on a five-point Likert scale. The scores were summed for a final result, with a higher score indicating a higher level of emotional labour
<ul style="list-style-type: none"> • Work ability (occupational competence) was measured by a single item measure using a visual analogue scale ranging from 0 (least) to 10 (most) (Thorsen <i>et al.</i> 2013): <i>Thinking about your current work ability, and assuming that your ability to work at the best has a value of 10, (and being unable to work would score 0), what score would you give yourself at the present time?</i> The focus is on the employees and their work ability assessed by themselves
<ul style="list-style-type: none"> • Leader–Member Exchange scale consisted of eight items that measured the responses on a five-point Likert scale (Graen and Uhl-Bien 1995). It focuses on the relationship that develops between managers and members of their teams. A higher score indicates a higher level of Leader–Member Exchange
<ul style="list-style-type: none"> • Occupational Self Efficacy (Short Form) used six items using a six-point Likert scale (Rigotti <i>et al.</i> 2008). It refers to the belief that an individual is competent to fulfil work-related tasks or activities. A higher summed score indicates a higher level of occupational self-efficacy
<ul style="list-style-type: none"> • Team psychological safety scale measures seven items on a five-point Likert scale (Edmondson 2018). It is a shared belief held by members of a team that the team is safe for interpersonal risk-taking. A higher summed score indicates a higher level of psychological safety

fill in the survey. Ethical oversight was provided by La Trobe University Human Research Ethics Committee (#HEC20304). A copy of the survey items is provided in Table 1, including an explanation of what each scale entails and how it is measured. The scales include the following: general wellbeing (scored as poorer self-related health), job stress, emotional labour, work ability, *Leader–Member Exchange*, occupational self-efficacy, and team psychological safety.

Statistical analysis

Data were analysed using IBM SPSS Statistics 27 (SPSS Inc). Descriptive statistics were used in this study when analysing the responses. Pairwise deletion was adopted to manage missing values in statistical analyses. A two-tailed *P*-value <0.05 was considered statistically significant. A summed score for general wellbeing (scored as poorer self-related health), job stress (Job Stress, Time Stress, Job Anxiety), emotional labour (Frequency, Intensity, Variety, Surface Acting, Deep Acting), work ability, *Leader–Member Exchange*, occupational self-efficacy, and psychological safety was generated (see Table 1 for details of the scoring methods). The reliability of each scale was ascertained using Cronbach Alpha estimates. Means and standard deviations (s.d.) of these indicators were calculated and compared among the participants with different demographic characteristics using Student *t*-tests (for categorical variables of demographic characteristics) or Pearson correlation analyses (for continuous variables of demographic characteristics). Multivariate linear

regression analyses were performed to confirm these associations after adjustment for variations in other variables.

Results

Participant characteristics

A total of 100 surveys were returned, of which 65 (65%) were deemed complete. The remainder of the surveys had multiple sections filled, but not to completion. In 2020, it was estimated that there were 32 412 registered pharmacists in Australia and almost two-thirds (62%) were females, with approximately one-fifth (21%) around age 50 years. It is unclear how many of these are in full-time or part-time employment (Pharmacy Board 2020).

All the respondents were community pharmacists. The majority (80%) of participants identified as female, 25% were aged >50 years, and >82% regarded English as their first language. Of those who provided information related to both sex and current work role (*n* = 58), the majority of pharmacy owner/operators were male, whereas females were far more likely to be pharmacy managers and community employee pharmacists. All interns were female. Close to half of the participants (41%) obtained a postgraduate qualification. About 74% were working full-time, and 47% reported being employed in their current position for >3 years. The participants were spread across the six states: 30% from New South Wales; 30% from Victoria; 15% from Western Australia; 14% from Queensland; 6% from South Australia; and the remainder non-specified.

Measurements of general wellbeing, Leader-Member Exchange, job stress, emotional labour, occupational self-efficacy, and psychological safety

The mean values and standard deviations (s.d.) of these measurements are presented in Table 2. All of the measurements had >0.7 Cronbach's α coefficient (Table 2).

Females were reported to have lower perceptions of psychological safety. Those with English as their first language reported lower emotional labour, but higher occupational self-efficacy. Moreover, full-time workers reported high Leader-Member Exchange, and older age was associated with poorer self-reported health and lower emotional labour. Being in their current position for a longer time was associated with higher occupational self-efficacy, whereas working long hours was associated with higher psychological safety (Table 3).

Leader-Member Exchange was positively correlated with psychological safety and negatively correlated with job stress. Poorer health was correlated with more job stress and emotional labour, and lower occupational self-efficacy. Job stress was correlated with higher emotional labour, but correlated with lower occupational self-efficacy and psychological safety. Emotional labour was associated with lower psychological safety. Higher work ability was associated with higher levels of Leader-Member Exchange, occupational self-efficacy, and psychological safety, and lower levels of job stress, emotional labour, and poorer health outcomes, as shown in Table 4.

The multivariate linear regression models confirmed several personal characteristics and work-related factors as predictors of some areas of work characteristics, after adjustment for variations in other variables, as shown in Table 5. Female pharmacists had lower occupational self-efficacy ($\beta = -0.286$, $P = 0.024$), but higher psychological safety ($\beta = 0.234$, $P = 0.042$). Higher work ability was associated with lower job stress ($\beta = -0.529$, $P < 0.001$), higher occupational self-efficacy ($\beta = 0.511$, $P = 0.001$), and better self-reported outcome ($\beta = -0.659$, $P < 0.001$).

Higher Leader-Member Exchange was associated with higher psychological safety ($\beta = 0.724$, $P < 0.001$). Longer customer interaction was associated with higher occupational self-efficacy ($\beta = 0.349$, $P = 0.010$) and psychological safety ($\beta = 0.245$, $P = 0.043$), and better self-reported health ($\beta = -0.325$, $P = 0.031$).

Discussion

Community pharmacists in this study reported a positive level of general wellbeing during the COVID-19 pandemic, which is higher than what was reported in other studies (Johnston et al. 2021). The possible consideration is that almost 60% of the respondents being located in rural areas, which at the time was less affected by substantially long periods of lockdown and repeated outbreaks. Another possible consideration may be that the negative effects of the COVID-19 pandemic were yet to adversely affect community pharmacists. This study finding is not consistent with those published by Johnston et al. (2021). The authors found that pharmacists experienced burnout during the global COVID-19 pandemic. Male pharmacists experienced burnout as feeling disconnected more than their female colleagues. The authors also highlighted that the COVID-19 pandemic has changed work practices for pharmacists, with many of them working overtime and experiencing an increased workload (Johnston et al. 2021).

In the present study, gender seems to be the most significant demographic predictor of wellbeing and work impacts, which is consistent with the literature in which stress and burnout in health practitioners have been widely reported (Ledikwe et al. 2018). The present study also found that female pharmacists had lower occupational self-efficacy, but higher psychological safety during a crisis such as the COVID-19 pandemic. This is also consistent with another recent study that found that being female is a predictor of seeking coping strategies and help-seeking behaviour (Smallwood et al. 2021) to support with work-related stress.

Table 2. General wellbeing and work impacts of study participants.

	Number of items	Range of scoring	Cronbach's α	Pharmacists	
				Mean	s.d.
Self-reported health ^A	24	0–96	0.910	33.57	13.19
Job stress	12	12–60	0.901	42.16	9.96
Emotional labour	14	14–70	0.938	43.89	13.34
Work ability	1	0–10	NA	6.78	2.07
Leader-Member Exchange	8	8–40	0.934	25.09	8.48
Occupational self efficacy	6	0–30	0.918	28.74	5.49
Psychological safety	7	7–35	0.779	22.11	5.68

^AHigh score indicates positive wellbeing, low score indicates poor health.

Table 3. Associations of general wellbeing and work impacts with sociodemographic characteristics of study participants: univariate analyses.

Characteristic	Leader–Member Exchange			Job stress			Emotional labour			Occupational self-efficacy			Psychological safety			General wellbeing (self reported health score)		
	Mean	s.d.	P-value	Mean	s.d.	P-value	Mean	s.d.	P-value	Mean	s.d.	P-value	Mean	s.d.	P-value	Mean	s.d.	P-value
Sex			0.405			0.464			0.625			0.458			0.029			0.086
Male	27.57	9.20		40.64	11.10		42.10	14.43		29.80	4.80		26.11	6.37		27.36	12.70	
Female	24.60	8.64		43.02	9.34		44.37	12.88		28.35	5.70		21.51	5.53		35.21	13.20	
Qualification			0.278			0.583			0.520			0.420			0.071			0.954
Postgraduate	23.79	9.30		43.04	8.37		44.86	12.48		28.04	6.84		20.56	5.86		33.48	12.74	
Undergraduate	26.37	7.96		41.58	11.18		42.52	13.61		29.24	4.34		23.29	5.51		33.26	13.75	
First language			0.627			0.204			0.046			0.011			0.979			0.517
English	25.23	8.76		40.92	10.58		41.40	12.77		29.65	4.26		22.45	5.91		32.14	13.50	
Others	26.88	8.54		45.56	4.67		50.50	12.06		24.67	8.70		22.50	5.15		36.20	9.42	
Employment			0.042			0.783			0.918			0.894			0.151			0.312
Full-time	26.63	8.53		41.93	9.75		43.63	12.96		28.64	5.92		22.89	5.62		32.21	12.22	
Non full-time	21.40	7.46		42.75	11.18		44.07	15.54		28.87	4.45		20.40	5.96		36.43	15.71	

Characteristic	Pearson correlation coefficient					
	Leader–Member Exchange	Job stress	Emotional labour	Occupational self-efficacy	Psychological safety	General wellbeing (self-reported health)
Age (years)	−0.028	−0.152	−0.305*	0.159	0.244	−0.279*
Customer interaction time (min)	−0.139	0.022	0.101	0.218	0.006	−0.110
Paid hours	0.143	0.017	0.068	0.196	0.264*	−0.164
Working hours	0.029	0.077	−0.187	−0.017	0.172	−0.047
Time in organisation (years)	−0.057	0.233	−0.090	0.201	−0.005	0.075
Time in position (years)	−0.024	0.141	−0.011	0.347**	0.044	0.004

*Correlation is significant at the 0.05 level (two-tailed).
 **Correlation is significant at the 0.01 level (two-tailed).

Table 4. Correlations of general wellbeing and work impact indicators.

Pearson correlation	Leader–Member Exchange	Job stress	Emotional labour	Occupational self efficacy	Psychological safety	General wellbeing self-reported health
Leader-Member Exchange	1					
Job stress	−0.419**	1				
Emotional labour	−0.265	0.579**	1			
Occupational self efficacy	0.252	−0.338*	−0.046	1		
Psychological safety	0.693**	−0.470**	−0.330*	0.121	1	
General wellbeing (self reported health score)	−0.195	0.645**	0.513**	−0.566**	−0.261	1
Work ability	0.385**	−0.681**	−0.367**	0.511**	0.329*	−0.660**

*Correlation is significant at the 0.05 level (two-tailed).
 **Correlation is significant at the 0.01 level (two-tailed).

This study highlighted that higher job stress is correlated with higher emotional labour and poorer self-related health, and lower occupational self-efficacy and psychological safety. Higher occupational self-efficacy is also associated

Table 5. Factors associated with general wellbeing and work impacts: results of multivariate regression models.

	Job stress		Emotional labour		Occupational self efficacy		Psychological safety		General wellbeing (high score indicates poorer health)	
	Standardised β	P-value	Standardised β	P-value	Standardised β	P-value	Standardised β	P-value	Standardised β	P-value
(Constant)		<0.001		<0.001		<0.001		0.025		<0.001
Sex	-0.212	0.081	-0.131	0.447	-0.286	0.024	0.234	0.042	-0.206	0.131
Age (years)	-0.113	0.379	-0.239	0.195	0.059	0.645	0.228	0.063	-0.109	0.464
Full time	0.076	0.559	0.122	0.528	-0.121	0.369	-0.064	0.597	0.038	0.799
Qualification	0.074	0.526	0.065	0.699	-0.154	0.201	-0.160	0.147	0.076	0.546
First language	-0.144	0.226	-0.219	0.197	0.081	0.501	-0.016	0.883	-0.052	0.677
Time in position (years)	-0.028	0.890	0.385	0.193	0.173	0.401	0.171	0.371	0.069	0.761
Time in organisation (years)	0.188	0.353	-0.331	0.251	-0.024	0.905	-0.296	0.120	0.056	0.788
Paid hours	0.089	0.507	0.178	0.371	0.248	0.076	0.057	0.645	-0.262	0.088
Working hours	0.067	0.627	-0.238	0.228	-0.194	0.159	-0.032	0.804	0.075	0.594
Leader–Member Exchange	-0.203	0.133	-0.211	0.284	0.147	0.317	0.724	<0.001	0.098	0.493
Customer interaction (min)	-0.117	0.359	-0.061	0.740	0.349	0.010	0.245	0.043	-0.325	0.031
Work ability	-0.529	<0.001	-0.229	0.231	0.511	0.001	-0.151	0.233	-0.659	<0.001
Adjusted R ²	0.487		0.067		0.519		0.569		0.476	

with poorer self-related health. Higher work ability is linked to higher reported occupational self-efficacy, lower emotional labour, and poorer self-related health. These results are consistent with another study that investigated the relationship between psychological wellbeing and occupational self-efficacy among teachers (Salimirad and Srimathi 2016). The authors found that there was a significant positive correlation between the two variables, confirming that addressing occupational self-efficacy has the potential to improve wellbeing and decrease staff turnover (Schyns et al. 2007). The authors suggested that this could be undertaken by direct supervision of employees and ensuring a supportive work environment is in place to reduce work-related stress and high staff turnover. Furthermore, Fallatah et al. (2017) found that authentic leadership and a supportive work environment lead to an increase in the confidence of workers in their ability to manage change and challenging work situations.

Organisations that advocate and endorse caring values for others are more likely to return a better work ability score. The importance of appropriate management and supervision of workers, and the improvement of work ability and occupational wellbeing to achieve a win–win situation, seem to be the key ingredients. Most importantly, *Leader–Member Exchange* was positively associated with perceptions of psychological safety and negatively associated with perceptions of job stress. Work ability is formed by the work environment, as well as personal health and abilities; however, although individual factors remain significant

predictors of work ability, Palermo et al. (2008) have found that other organisational factors such as occupational stress, job satisfaction, leadership effectiveness and the nurturing of workers, are significant positive predictors of work ability. These findings reinforce the importance of targeted human resource management strategies ensuring community pharmacists receive adequate support during a crisis.

The present study confirms that further studies on developing better understanding of how healthcare workers, including pharmacists, struggle at work in emergency situations like the recent COVID-19 pandemic, are warranted. Interventional studies should target different interventions customised for different sex and aged groups to better support healthcare workers during crises, as well and in the aftermath/recovery period, as this study found that females faced more challenges during crisis management. In particular, we would advocate for the further exploration of the outcome measures, as proposed by Dulebohn et al. (2012) to determine the impact and contribution of *Leader–Member Exchange* (Dulebohn et al. 2012).

This study has limitations, chiefly associated with the relatively low number of participants for an observational study involved, which might have been due to the time the survey was distributed during the height of a COVID-19 pandemic lockdown in Victoria. This possibly led to fewer pharmacists taking part in the survey due to work pressures. Second, the length of the survey was also another limiting factor, as it took almost 20 min to complete one survey,

which may have contributed towards a relatively high incompleteness rate reported in this study. Other limitations include: the self-reporting nature of the questionnaire is the unknown denominator; and recruitment challenges of the survey; a high proportion of pharmacists in this study have postgraduate qualifications.

Most importantly, although the number of participants who took part in the survey was low, the findings are consistent with the observed resilience and contribution of Australian community pharmacy personnel during the COVID-19 pandemic, an often-overlooked sector of the healthcare system.

Conclusion

This study highlights some of the occupational health issues and the required management support for community healthcare workers. The need for targeted interventions to support work environments for pharmacists during situations where there are high workloads, in particular of female pharmacists and those who have newly entered the workforce, are required. The opportunity for the role that professional organisations can play is highlighted here, and represents opportunities for targeted professional support to address burnout and stress.

References

- Arain S, Thalappambath R, Al Ghamdi FH (2021) COVID-19 pandemic: response plan by the Johns Hopkins Aramco Healthcare inpatient pharmacy department. *Research in Social and Administrative Pharmacy* 17(1), 2009–2011. doi:10.1016/j.sapharm.2020.05.016
- Aruru M, Truong H-A, Clark S (2021) Pharmacy Emergency Preparedness and Response (PEPR): a proposed framework for expanding pharmacy professionals' roles and contributions to emergency preparedness and response during the COVID-19 pandemic and beyond. *Research in Social and Administrative Pharmacy* 17(1), 1967–1977. doi:10.1016/j.sapharm.2020.04.002
- Austin Z, Gregory P (2021) Resilience in the time of pandemic: the experience of community pharmacists during COVID-19. *Research in Social and Administrative Pharmacy* 17(1), 1867–1875. doi:10.1016/j.sapharm.2020.05.027
- Bauer TN, Erdogan B (Eds) (2015) 'The Oxford handbook of leader-member exchange.' (Oxford University Press)
- Boyce MR, Katz R (2019) Community health workers and pandemic preparedness: current and prospective roles. *Frontiers in Public Health* 7, 62. doi:10.3389/fpubh.2019.00062
- Brotheridge CM, Lee RT (2003) Development and validation of the emotional labour scale. *Journal of Occupational and Organizational Psychology* 76(3), 365–379. doi:10.1348/096317903769647229
- Brunetto Y, Farr-Wharton R, Shacklock K (2011) Supervisor-nurse relationships, teamwork, role ambiguity and well-being: public versus private sector nurses. *Asia Pacific Journal of Human Resources* 49(2), 143–164. doi:10.1177/1038411111400161
- Cadogan CA, Hughes CM (2021) On the frontline against COVID-19: community pharmacists' contribution during a public health crisis. *Research in Social and Administrative Pharmacy* 17(1), 2032–2035. doi:10.1016/j.sapharm.2020.03.015
- Carpenter DM, Hastings T, Westrick S, Rosenthal M, Mashburn P, Kiser S, Shepherd JG, Curran G (2021) Rural community pharmacies' preparedness for and responses to COVID-19. *Research in Social and Administrative Pharmacy* 17(7), 1327–1331. doi:10.1016/j.sapharm.2020.10.008
- Casey K, Fink RNR, Krugman AOCNM, Propst FAANJ (2004) The graduate nurse experience. *JONA: The Journal of Nursing Administration* 34(6), 303–311. doi:10.1097/00005110-200406000-00010
- Cox T, Thirlaway M, Gotts G, Cox S (1983) The nature and assessment of general well-being. *Journal of Psychosomatic Research* 27(5), 353–359. doi:10.1016/0022-3999(83)90066-1
- Dansereau F Jr, Graen G, Haga WJ (1975) A vertical dyad linkage approach to leadership within formal organizations: a longitudinal investigation of the role making process. *Organizational Behavior and Human Performance* 13(1), 46–78. doi:10.1016/0030-5073(75)90005-7
- Dulebohn JH, Bommer WH, Liden RC, Brouer RL, Ferris GR (2012) A meta-analysis of antecedents and consequences of leader-member exchange: integrating the past with an eye toward the future. *Journal of Management* 38(6), 1715–1759. doi:10.1177/0149206311415280
- Eades CE, Ferguson JS, O'Carroll RE (2011) Public health in community pharmacy: a systematic review of pharmacist and consumer views. *BMC Public Health* 11(1), 582. doi:10.1186/1471-2458-11-582
- Edmondson AC (2018) 'The fearless organization: creating psychological safety in the workplace for learning, innovation, and growth.' (John Wiley & Sons)
- Elliott C (2017) Emotional labour: learning from the past, understanding the present. *British Journal of Nursing* 26(19), 1070–1077. doi:10.12968/bjon.2017.26.19.1070
- Fallatah F, Laschinger HKS, Read EA (2017) The effects of authentic leadership, organizational identification, and occupational coping self-efficacy on new graduate nurses' job turnover intentions in Canada. *Nursing Outlook* 65(2), 172–183. doi:10.1016/j.outlook.2016.11.020
- Graen GB, Uhl-Bien M (1995) Relationship-Based approach to leadership: Development of leader-member exchange (LMX) theory of leadership over 25 years: applying a multi-level multi-domain perspective. *The Leadership Quarterly* 6(2), 219–247.
- Jawahar IM, Schreurs B (2018) Supervisor incivility and how it affects subordinates' performance: a matter of trust. *Personnel Review* 47, 709–726. doi:10.1108/PR-01-2017-0022
- Johnston K, O'Reilly CL, Scholz B, Georgousopoulou EN, Mitchell I (2021) Burnout and the challenges facing pharmacists during COVID-19: results of a national survey. *International Journal of Clinical Pharmacy* 43(3), 716–725. doi:10.1007/s11096-021-01268-5
- Karimi L, Leggat SG, Donohue L, Farrell G, Couper GE (2014) Emotional rescue: the role of emotional intelligence and emotional labour on well-being and job-stress among community nurses. *Journal of Advanced Nursing* 70(1), 176–186. doi:10.1111/jan.12185
- Ledikwe JH, Kleinman NJ, Mpho M, Mothibedi H, Mawandia S, Semo BW, O'Malley G (2018) Associations between healthcare worker participation in workplace wellness activities and job satisfaction, occupational stress and burnout: a cross-sectional study in Botswana. *BMJ Open* 8(3), e018492. doi:10.1136/bmjopen-2017-018492
- Lee H (2021) Changes in workplace practices during the COVID-19 pandemic: the roles of emotion, psychological safety and organisation support. *Journal of Organizational Effectiveness: People and Performance* 8, 97–128. doi:10.1108/JOEPP-06-2020-0104
- Luthans F, Avolio BJ (2003) Authentic leadership development. *Positive Organizational Scholarship* 241, 258.
- Malik F, Shahabuddin S (2015) Occupational health stress in the service sector. *Qualitative Report* 20(3), 234–250. doi:10.46743/2160-3715/2015.2272
- Morris JA, Feldman DC (1996) The dimensions, antecedents, and consequences of emotional labor. *The Academy of Management Review* 21(4), 986–1010. doi:10.2307/259161
- Palermo J, Webber L, Smith K, Khor A (2008) Factors that predict work ability: incorporating a measure of organisational values towards ageing. In 'Promotion of work ability towards productive ageing'. (Ed. M. Kumashiro) pp. 55–68. (CRC Press)
- Parker DF, DeCotiis TA (1983) Organizational determinants of job stress. *Organizational Behavior and Human Performance* 32(2), 160–177. doi:10.1016/0030-5073(83)90145-9
- Pharmacy Board (2020) Available at <https://www.pharmacyboard.gov.au/news/newsletters/march-2020> [Accessed 20 February 2022]
- Rigotti T, Schyns B, Mohr G (2008) A short version of the occupational self-efficacy scale: structural and construct validity across five countries.

- Journal of Career Assessment* 16(2), 238–255. doi:10.1177/1069072707305763
- Salim AM, Elgizoli B (2016) Exploring self-perception of community pharmacists of their professional identity, capabilities, and role expansion. *Journal of Research in Pharmacy Practice* 5(2), 116–120. doi:10.4103/2279-042X.179574
- Salimrad F, Srimathi NL (2016) The relationship between, psychological well-being and occupational self-efficacy among teachers in the city of Mysore, India. *The International Journal of Indian Psychology* 3(2), 14–21. doi:10.25215/0302.037
- Schyns B, Torck N, Gössling T (2007) Turnover intention and preparedness for change: exploring leader-member exchange and occupational self-efficacy as antecedents of two employability predictors. *Career Development International* 12, 660–679. doi:10.1108/13620430710834413
- Sim TF, Hattingh HL, Sunderland B, Czarniak P (2020) Effective communication and collaboration with health professionals: a qualitative study of primary care pharmacists in Western Australia. *PLoS ONE* 15(6), e0234580. doi:10.1371/journal.pone.0234580
- Smallwood N, Karimi L, Pascoe A, Bismark M, Putland M, Johnson D, Dharmage SC, Barson E, Atkin N, Long C, Ng I, Holland A, Munro J, Thevarajan I, Moore C, McGillion A, Willis K (2021) Coping strategies adopted by Australian frontline health workers to address psychological distress during the COVID-19 pandemic. *General Hospital Psychiatry* 72, 124–130. doi:10.1016/j.genhosppsych.2021.08.008
- Thorsen SV, Burr H, Diderichsen F, Bjorner JB (2013) A one-item workability measure mediates work demands, individual resources and health in the prediction of sickness absence. *International Archives of Occupational and Environmental Health* 86(7), 755–766. doi:10.1007/s00420-012-0807-z
- Visacri MB, Figueiredo IV, de Mendonça Lima T (2021) Role of pharmacist during the COVID-19 pandemic: a scoping review. *Research in Social and Administrative Pharmacy* 17(1), 1799–1806. doi:10.1016/j.sapharm.2020.07.003

Data availability. The authors are able to provide de-identified data upon reasonable request.

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