

Evidence Brief: Pharmacy Workforce

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Produced by the Knowledge Management team Evidence Briefs offer an overview of the published reports, research, and evidence on a workforce-related topic.

Date of publication: October 2024

Please acknowledge this work in any resulting paper or presentation as:
Evidence Brief: Pharmacy Workforce. Katie Nicholas. (October 2024). UK: Workforce, Training and Education Knowledge Management Team

There may have been an update to this Evidence Brief - to check you are reading the most current version please see the links below:

- [Complete Evidence Brief list – link for Workforce, Training and Education staff](#)
- [Complete Evidence Brief list – link for External staff](#)

Key publications – the big picture

[Pharmacy Pressures Survey 2024](#)

Source: Community Pharmacy England

Publication date: October 2024

Community pharmacies are facing critical financial pressures. As privately owned businesses providing NHS services, pharmacies are run by skilled business people who combine an entrepreneurial approach with a real desire to improve health outcomes.

[Independent investigation of the NHS in England \(the Darzi review\)](#)

Source: Department of Health and Social Care

Publication date: September 2024

See p. 31-2 “Access to community pharmacy”

Lord Darzi's report on the state of the National Health Service in England.

[Community pharmacy workforce survey 2023](#)

Source: Health Education England

Publication date: September 2024

The community pharmacy workforce survey is an annual survey that strengthens the visibility of pharmacy workforce data within the community pharmacy sector.

[Primary care patient safety strategy](#)

Source: NHS England

Publication date: September 2024

This strategy outlines the primary care implementation of the [NHS Patient Safety Strategy](#), and is for all areas of primary care, though with some improvements implemented first in general practice to enable the successes and learning to be used in the rollout to community pharmacy, optometry and dental services.

[Pharmacy closures in England](#)

Source: Healthwatch

Publication date: 26 September 2024

Our new briefing provides the first geographical breakdown of pharmacy closures in England.

[Pharmacy: Third Report of Session 2023-24](#)

Source: House of Commons Health and Social Care Committee

Publication date: May 2024

Prescribing is the most common way of treating patients in the NHS and is the second highest area of spending, after staffing costs. Covid-19 shone a light on community pharmacies - many remained open when people struggled to know where to turn for their health needs. As the health and care system continues to recover from the pandemic, changes to the way in which we all access services are being developed. Pharmacies are at the forefront of that work.

[Community pharmacy primary care network engagement role](#)

Source: NHS England

Publication date: May 2024

Community pharmacy primary care network (PCN) engagement lead role has been established to support the regional implementation of the pharmacy Primary Care Access Recovery Plan (PCARP) requirements, including implementing the Pharmacy First Service and expanding the Blood Pressure Checks Service and Pharmacy Contraception Service.

[Workforce Wellbeing Roundtable Summary](#)

Source: Royal Pharmaceutical Society

Publication date: February 2024

To explore the impact of Pharmacy Workforce Wellbeing on patient safety, we met with Pharmacist Support in March 2024.

Our joint report looks at how key stakeholders across pharmacy can work together to help address pharmacists' mental health and wellbeing.

Annual workforce survey

Source: Community Pharmacy England

Publication date: Updated 2 October 2024

Since 2022, it has been a Terms of Service requirement for pharmacy owners to complete an annual NHS England community pharmacy workforce survey.

The data from the survey is intended to provide a full picture of the community pharmacy workforce, including identifying the number of vacancies and regions where these are particularly hard to fill.

Special report: the community pharmacy workforce crisis

Source: Pharmaceutical Journal

Publication date: 31 August 2023

Confirmation that the workforce crisis in community pharmacy in England has deepened came in August 2023 with the long-awaited publication of the results from NHS England's 'Community Pharmacy Workforce Survey 2022'.

Pharmacy Workforce Race Equality Standard

Source: NHS England

Publication date: 27 September 2023

The Pharmacy Workforce Race Equality Standard sets out to improve equality, diversity and inclusion in pharmacy teams in the NHS. This report provides the first national overview of the varied experiences that registered pharmacy professionals and wider team members in NHS trusts face.

Shared workforce model for employing pharmacy professionals via the Additional Role Reimbursement Scheme: optional guidance for employers

Source: NHS England

Publication date: November 2023

This guidance document sets out optional workforce models that community pharmacies and hospital pharmacy departments may wish to consider in collaboration with primary care networks.

NHS Long Term Workforce Plan

Source: NHS England

Publication date: June 2023

The first comprehensive workforce plan for the NHS, putting staffing on a sustainable footing and improving patient care. It focuses on retaining existing talent and making the best use of new technology alongside the biggest recruitment drive in health service history.

See p. 19 for expanding training places

See p. 47 for pharmacy training

See p. 75 for opportunities to use technology in primary care

See p. 95-6 for Community pharmacies providing clinical services and independent prescribing

Workforce sustainability and supporting positive practice in community pharmacy – an international report by the FIP Community Pharmacy Section

Source: International Pharmaceutical Federation

Publication date: 2023

This global report has been produced by the FIP Community Pharmacy Section (CPS) and is the first of its kind. It gathers individual community pharmacist's experience of their day-to-day practice in their communities and their own outlook on their future practice and the sustainability of their profession. It is a build on the CPS Vision document for 2020– 2025, which defines the unique skills and potential of community pharmacists around

the world to sustain their current pivotal roles and contributions to their communities' health care but also to add more choice and access to primary health care for the communities they serve.

[The future of pharmacy manifesto report](#)

Source: All-Party Pharmacy Group

Publication date: January 2023

Why did we conduct this inquiry? Pharmacies are at the heart of every community. Pharmacy teams demonstrated their value, resilience, and adaptability by supporting patients during the worst of the pandemic at a time when the NHS changed beyond all recognition. This prompted the All-Party Parliamentary Pharmacy Group to launch this inquiry into the future of the pharmacy sector. The COVID pandemic has generated a significant backlog of demand at all levels within the NHS. It is essential that the entire healthcare system, including pharmacy, is efficiently utilised to address this.

[A summary of discussion in National Voices' roundtable on the future of community pharmacy on behalf of the National Pharmacy Association](#)

Source: National Voices

Publication date: January 2023

On Wednesday 12 October 2022, National Voices convened a group of its members and lived experience partners on behalf of the National Pharmacy Association to discuss the future role of community pharmacy within primary care and more widely. The National Pharmacy Association is the representative voice of independent community pharmacies across the UK and a leading provider of services to the entire sector.

[Next steps for integrating primary care: Fuller Stocktake report](#)

Source: NHS England

Publication date: May 2022

This is the final report of the stocktake undertaken by Dr Claire Fuller, Chief Executive-designate Surrey Heartlands Integrated Care System and GP on integrated primary care, looking at what is working well, why it's working well and how we can accelerate the implementation of integrated primary care (incorporating the current 4 pillars of general practice, community pharmacy, dentistry and optometry) across systems.

[Integrating additional roles into primary care networks](#)

Author(s): Baird et al.

Source: The King's Fund

Publication date: March 2022

This report examines the extent to which Additional Roles Reimbursement Scheme (ARRS) roles have the potential to make a significant contribution to the quality of patient care in general practice and represent a significant investment in the future sustainability of general practice. The Additional Roles Reimbursement Scheme (ARRS) was introduced in England in 2019 as a key part of the government's manifesto commitment to improve access to general practice. The aim of the scheme is to support the recruitment of 26,000 additional staff into general practice. This represents a huge scale of ambition and requires the implementation of significant and complex change across general practice. While primary care networks (PCNs) have swiftly recruited to these roles, they are not being implemented and integrated into primary care teams effectively. This study focuses on four roles - social prescribing link workers; first contact physiotherapists; paramedics and pharmacists - to examine the issues related to the implementation of these roles, looking at the experiences of working in these roles and of the people managing them. We found a lack of shared understanding about the purpose or potential contribution of the roles, combined with an overall ambiguity about what multidisciplinary working would mean for GPs. Successful implementation of the scheme requires extensive cultural,

organisational and leadership development skills that are not easily accessible to PCNs. We found examples of good practice and positive stories of implementation, but to ensure successful implementation of the roles we make recommendations including: a clearer, shared vision for a multidisciplinary model of care; a comprehensive package of support for implementation of the scheme including improved support for clinical and managerial supervision; streamlining and communicating current guidance and roadmaps in different ways that make them more accessible and practical for PCNs, practices and professionals to understand and implement; a focus on future sustainability, including funding, estates strategy and career progression; leadership and management skills development embedded in GP specialist training.

[A vision for pharmacy professional practice in England](#)

Source: The King's Fund and Royal Pharmaceutical Society

Publication date: 2022

This document outlines key ambitions for the future of pharmacy in England over the next decade. It sets out how pharmacy teams can support better patient care and address key challenges facing the nation's health. It calls for the complete integration of pharmacy professionals across health and care systems to enable a transformation in patient care, supported by a comprehensive pharmacy workforce strategy, improved use of data and research to drive better patient outcomes, and strong skilful leadership and collaboration to inform professional practice.

[PSNC Briefing 013/22: Summary of the results of PSNC's 2022 Pharmacy Pressures Survey](#)

Source: PSNC

Publication date: April 2022

England's community pharmacies have played a vital role in the Government's COVID-19 pandemic response, including staying

open throughout to provide critical face-to-face healthcare services and advice to patients and the public. This has brought with it significant additional pressure, which is being worsened by rising operating costs, and by a workforce crisis enveloping the sector.

[RPS recommendations and case studies for Integrated care Systems](#)

Source: Royal Pharmaceutical Society

Publication Date: 2022

Abstract: This document focuses on the role pharmacists and their teams can play within integrated care systems (ICSs) and how they can positively impact on patient care through strong strategic leadership across an ICS. With the establishment of ICSs, there are huge opportunities for integrated care across different organisations and settings. This includes more joined up working between hospital, primary care and community-based services, physical and mental health, and health and social care. Medicines are the most common intervention in primary and secondary healthcare and form a key component of all care pathways. The delivery of medicines priorities within an ICS requires close system working to benefit patients and communities. Multi-professional clinical and care leadership will enable excellent patient outcomes from medicines use and the pharmacy workforce. The document makes a number of recommendations aimed at those working at senior level within an ICS board, focusing on: professional and clinical leadership and engagement with the pharmacy profession; workforce; medicines optimisation; commissioning; digital. As ICSs develop, there is a need to adopt innovative practice, take learnings from the pandemic and share them across systems to deliver better care and outcomes for patients and the public.

[Our vision for the future of pharmacy professional leadership](#)

Source: Royal Pharmaceutical Society

The Chief Pharmaceutical Officers of England, Scotland, Wales and Northern Ireland have set up an Independent Commission on Pharmacy Professional Leadership¹. As part of the RPS's support of the work of the Independent Commission, we have created a comprehensive response to the call for evidence. In doing so, we have found that the survey format used by the Commission lends itself more easily to an individual's response, rather than an organisational response. Therefore, we have created this statement. There are many aspects of our organisational vision we consider to be an important part of the evidence submission and we believe this statement gives a more complete picture of our organisational position.

[Working collaboratively in an ICS: freeing up opportunities in community pharmacy](#)

Source: NHS Confederation

Publication date: September 2021

Exploring the opportunities for greater collaborative working between community pharmacy, primary care networks and federations within ICSs.

[Community pharmacy: no longer the silent 'P' in PCNs](#)

Source: NHS Confederation

Publication date: 27th September 2021

Practical steps to ensure community pharmacy resource is effectively engaged to best support improved outcomes for primary care networks' populations.

[A new prescription: the future of community pharmacy in Wales](#)

Source: Welsh Government

Publication Date: 2021

Abstract: Discusses reforms for community pharmacies in Wales. Draws on legislation and policy commitments agreed by the

Welsh Government with community pharmacies. Outlines the scale of service that the 713 community pharmacies provide in Wales, such as dispensing over 75m prescriptions and providing just under 75,000 consultations in the common ailment service. Presents six principles for better utilising community pharmacies by improving capacity; workforce capability; collaboration with other NHS and primary care providers; improving knowledge sharing and communication from the NHS; rewarding continuity of service; and reaffirming social capital of pharmacies in their communities. Shows that several measures will be used to deliver these goals, including changing the amount and distribution of funding for community pharmacies; providing every pharmacy with access to digital tools and information, such as Microsoft 365 and the Welsh GP Record; reviewing the terms of service for pharmacy contractors to reduce unnecessary bureaucracy and administration. See also 'A new prescription: one year on' (Ref. B70095).

[Impacts of current funding, policy and economic environment on independent pharmacy in England](#)

Source: EY

Publication date: September 2020

Nearly three-quarters of family-owned pharmacies in England could be forced to shut their doors over the next four years according to a damning new report from Ernst and Young. The study found that pharmacies are under-funded to the tune of £497m – with 72 percent forecast to be loss-making within four years if the current contractual arrangements carry on unchanged. The report estimates that the average pharmacy will be making an annual loss of £43k by 2024.

[The future of pharmacy in a sustainable NHS: key principles for transformation and growth](#)

Source: Royal Pharmaceutical Society

Publication date: July 2020

Coronavirus has shaken the very foundations of our health care system. The pandemic has brought unparalleled challenges that have stretched personal and professional resilience to the limit. The result has been innovation and transformation like never before. Clearly, the future delivery of NHS services will never be the same again. The decisions and actions we take now will be critical in crafting the future we want for pharmacy and our patients. The commitment of the pharmacy profession to patient care, and the hard work and determination to sustain medicines supply and key pharmaceutical care services throughout the pandemic, has been a source of immense pride. The commitment to patient care has been awe-inspiring and is widely acknowledged across the NHS and by the general public.

[Improving inclusion and diversity across our profession: our strategy for pharmacy 2020-2025](#)

Source: Royal Pharmaceutical Society

Publication date: June 2020

This report is borne out of a series of conversations that took place over the last year, in which we strengthened and formalised our commitment to improving I&D within the profession. We formed an internal steering group and appointed an independent chair, Asif Sadiq MBE, to oversee our I&D activities and we undertook a comprehensive survey that pinpointed our strengths and weaknesses as a profession. Asif facilitated workshops with members and other representatives in England, Scotland and Wales, in which we explored areas that are ripe for change, as well as the organisational areas that RPS needs to address to embody the change for which we so strongly advocate

[On primary care: General Practice, Pharmacy, Workforce](#)

Source: University of Manchester

Publication date: 2020

Our publication *On Primary Care: General Practice, Pharmacy, Workforce* asks leading experts in three areas of the UK primary care sector to identify the challenges and opportunities facing policymakers today.

[Pharmacy Workforce Review 2020](#)

Source: Department of Health Northern Ireland

Publication date: November 2020

In March 2018 a Project Board was established to complete a review of the pharmacy workforce, incorporating pharmacists, pharmacy technicians and pharmacy support staff, to inform HSC workforce development needs over the next ten years. The review was planned and reported in accordance with the Regional HSC Workforce Planning Framework, which is a practical approach to ensuring a workforce of the right size and with the right skills.

Case Studies

[Designing the 'One Pharmacy Workforce Model' for an integrated future across South East London](#)

Source: South East London Integrated Care System

The One Pharmacy Workforce Model conceptualises a multi-level strategic framework for optimising the pharmacy workforce through a shared approach across health and care organisations.

[Chief Pharmaceutical Officer clinical fellows and inclusive pharmacy practice case studies](#)

Source: NHEngland

Publication date: September 2023

Chief Pharmaceutical Officer (CPhO) clinical fellows are playing a key role working on inclusive pharmacy practice (IPP) projects at NHS England and partner organisations. Here a selection of

former clinical fellows discuss why IPP is important to them and their related projects.

[Supporting early discharge from hospital through a trust-led virtual ward: Central London Community Healthcare NHS Trust](#)

Source: NHS Confederation

Publication date: 6 July 2023

Insights on how the Wandsworth and Merton hospital at home team set up one of the first community trust-led virtual wards in the country.

[Oncology Pharmacy Workforce](#)

Source: Wessex Cancer Alliance

Publication date: 2023

Oncology Pharmacy Workforce, related to the delivery of Systemic Anti-Cancer Treatment services (SACT) to cancer patients across Wessex. This project was funded by HEE SE Cancer and Diagnostics programme.

[Case Study: Cornwall and the Isles of Scilly \(CIOS\)](#)

Source: NHS England Workforce, Training and Education

Publication date: Pilots in 2022/23

CIOS decided to place a bid for the teach and treat pilot to support the upskilling of community pharmacists ahead of the 25/26 year of trainee pharmacists who will need a designated prescribing practitioner (DPP). The majority of the community pharmacists in Cornwall that work for a multiple had not had the opportunity to undertake their prescribing qualification, and for those working in the independent sector there was not a viable opportunity for them to do so. CIOS have to increase the amount of trainee pharmacists that they offer training to each year, and the only way to sustain and achieve this was to offer an opportunity to those pharmacists who didn't have a prescribing

qualification to undertake this. Our aim is to offer the training and opportunity to source a DPP to all our community pharmacists, so that we can offer a training post in cross sector placements.

[Case Study: Devon](#)

Source: NHS England Workforce, Training and Education

Publication date: Pilots in 2022/23

What made you bid for the teach and treat funding?

- desire to engage in collaborative system-level working
- prioritise community pharmacists to get as many to achieve their Independent Prescriber (IP) qualification as possible and then see how we can transition them to DPS and DPP in time for September 2025
- establishing any model that expands supervision capacity ahead of next September was needed
- key stakeholders were mostly based in general practice as these are the relationships that must continue beyond the course and will lay the foundation for safe IP in community pharmacy

[Widening local participation through partnering with the Prince's Trust](#)

Source: NHS Employers

Publication date: January 2023

Read about how a Manchester trust is supporting more young people into employment through its new partnership with The Prince's Trust.

[Pharmacy Advanced Practitioner Case Study with Patient Experience](#)

Source: Health Education England

Publication date: 2022

This video provides an insight into working as a Pharmacist Advanced Practitioner within Pre-Assessment.

[Primary Care Network clinical pharmacist role offers room to grow for new recruit](#)

Source: NHS England

Publication date: July 2020

Receiving the news that I had finally qualified, after a year as a hospital pre-registration pharmacist, brought a sense of elation like no other. All those years of study, the gruelling revision periods every summer and the pre-registration exam all suddenly seemed worth the stress to become a pharmacist.

[Case studies for pharmacists and GP surgeries](#)

Source: Royal Pharmaceutical Society

[Pharmacy technicians](#)

Source: NHS England Workforce, training and education East Midlands

Pharmacy technicians are professional members of the pharmacy team who prepare and manage the supply of medicines and give advice to patients and customers. The role pharmacy technician is regulated by the General Pharmaceutical Council and has developed significantly in recent years.

Pharmacy Technicians carry out some of the same tasks as a pharmacist, engaging with patients, managing the supply of medicines and liaising with other members of the healthcare team. Pharmacy Technicians work in a variety of settings including hospitals, community pharmacies, primary care (including GP surgeries), care homes, universities and colleges, health and justice services, the armed forces and industry. These case studies show different roles undertaken by Pharmacy Technicians improving clinical care and efficiency in a variety of settings to help you understand the possibilities a career as a pharmacy technician can lead to.

[Clinical pharmacists in general practice: the Old School Surgery, Bristol](#)

Source: NHS Long Term Plan

Publication date: March 2019

This video case study explains the role of clinical pharmacists in general practice, clarifying when and why patients might see a clinical pharmacist.

The Star for workforce redesign

More resources and tools are available by searching for “**pharmacy**” in [the Star](#)

Statistics

You can find relevant statistics on the [Health and Care Statistics Landscape](#) under “**Prescribing**” and “**Workforce**” use the “**Cancer**” filters

National Data Programme

Workforce, Training and Education staff can look at the [National Data Warehouse \(NDL\)](#) SharePoint site to find out more about datasets and Tableau products.

Published Peer Reviewed Research

Advanced practice

[Evaluation of a novel advanced pharmacy technician role: discharge Medication Education Technician](#) Abstract only*

Item Type: Generic

Author: Anderson, B. J., Taylor, S. E., Mitchell, S. M., Carroll, M. E., Verde, A., Sepe, D., EL-Katateny, E., Droney, J., Than, J. and Hilley, P.

Publication Date: 2021

Publication Details: Journal of Pharmacy Practice and Research, 51, (5) pp.396-405. , Australia: John Wiley and Sons Inc.

Abstract: Background: Despite evidence to support pharmacists practicing in advanced scope roles, embedding such roles into practice is challenging. Upskilling hospital pharmacy technicians (HPTs) to undertake selected clinical support roles under indirect supervision could relieve pharmacists from non-complex tasks.

Aim(s): To compare patient satisfaction with routine postoperative discharge medication education provided by a HPT or pharmacists in a short-stay surgery setting. Method(s): An HPT completed a comprehensive training program to become a credentialed medication education technician (MEdTech).

Consecutive overnight-staying patients were assigned to receive education by the MEdTech or pharmacists according to staff availability. Patient satisfaction with their education experience was measured via telephone calls the day following discharge.

The hospital's Research Office approved this study as quality improvement. Result(s): Overall, 341 patients were screened and 217 met all inclusion criteria. Two hundred patients provided feedback (100 educated by the MEdTech and 100 by pharmacists). All patients reported high levels of overall satisfaction with their education experience, irrespective of which pharmacy staff member provided the education; a finding

supported by the qualitative feedback. Significantly more MEdTech-educated patients were very satisfied with the amount of information provided (92% vs 79%) and ease of following the education (97% vs 86%) than pharmacist-educated patients, respectively. Conclusion(s): This study supports advanced practice HPTs assisting with the provision of medication information to patients. This novel workforce model could facilitate pharmacists working in advanced-scope roles by having advanced HPTs undertake uncomplicated aspects of clinical pharmacy within a defined scope of practice and with specific pharmacist referral criteria. Copyright © 2021 The Society of Hospital Pharmacists of Australia

[Trends in advanced practice and specialisation in the global pharmacy workforce: a synthesis of country case studies](#)

Item Type: Generic

Author: Bader, L. R., Bates, I. and Galbraith, K.

Publication Date: 2020

Publication Details: International Journal of Pharmacy Practice, 28, (2) pp.182-190. , United Kingdom: Wiley-Blackwell Publishing Ltd (E-mail: info@royensoc.co.uk).

Abstract: Objectives: This study aims to gain a better understanding of the drivers and barriers to the development of advanced practice and specialised systems around the world. Through the synthesis of in-depth country case studies, this paper aims to identify current models of advanced practice and specialisation in pharmacy and illustrate trends, drivers and barriers in policy development. This is the first analysis of its kind to examine pharmacy specialisation and advanced practice in this depth from a global perspective. Method(s): A synthesis of country case studies was carried out. The country case study template was reviewed and approved by an expert working group drawn from a cross section of International Pharmaceutical Federations (FIP) experts and special-interest groups. FIP member organisations and country-level contacts

from regulatory, professional and government agencies and universities were approached to contribute to the case study database. The data were collected between January and May 2015. Descriptive comparative analysis and qualitative thematic analysis were both used to analyse the data. Key Findings: Case study submissions were received from 17 countries. The findings demonstrate that the pace and depth of change in advanced practice and specialisation are occurring at different rates across countries and regions, although many countries appear to be moving towards recognising advanced and specialised practice of pharmacists and developing frameworks and/or formalised recognition systems. Conclusion(s): Country-specific examples are useful in identifying factors that may contribute to the rate at which developments in advanced practice and specialisation in pharmacy are taking place and enable progress in around the world. Copyright © 2020 Royal Pharmaceutical Society

Burnout and stress

Prevalence and Factors Associated with Burnout among Community Pharmacists in Saudi Arabia: Findings and Implications

Item Type: Journal Article

Authors: Alhomoud, Ibrahim S. and Alrasheedy, Alian A.

Publication Date: 2024

Journal: Healthcare (Basel, Switzerland) 12(18)

Abstract: Burnout has negative consequences for the well-being of healthcare professionals and for the safety of patients. The prevalence of burnout varies among health professions and practice settings and across studies. Consequently, this cross-sectional study aimed to determine the prevalence and factors associated with burnout among community pharmacists in the Qassim region, Saudi Arabia. The study used the Copenhagen Burnout Inventory (CBI) to assess the burnout. The CBI consists of three scales, including personal burnout, work-related burnout,

and client-related burnout. A total of 226 community pharmacists participated in the study. Of these, 63.72% were male, and 44.25% had experience of 1-5 years as community pharmacists. The prevalence of personal burnout was 83.63%, while the prevalence of work-related burnout was 83.19%, and the prevalence of client-related burnout was 76.11%. The prevalence of burnout was higher among younger age, early-career pharmacists; staff pharmacists; pharmacists working ≥ 6 days per week; and those working in pharmacies with fewer pharmacy teams. Multivariable logistic regression showed that compared to five workdays, working six and seven days per week was an independent risk factor for developing personal burnout (adjusted odds ratio (aOR) = 3.60: CI = (1.29-10.05), $p = 0.014$) and (aOR = 4.72: CI = (1.17-19.08), $p = 0.030$), respectively]. Similarly, pharmacists working in pharmacies with one or two pharmacists were at higher odds of developing personal burnout compared to others working in a larger team (aOR = 3.41: CI = (1.09-10.66), $p = 0.035$). For work-related burnout, working six and seven days per week was also an independent risk factor (aOR = 5.78: CI = (1.96-17.06), $p = 0.001$), and (aOR = 8.38: CI = (1.99-35.27), $p = 0.004$, respectively)]. For client-related burnout, staff pharmacists were at higher odds of developing client-related burnout compared to pharmacy managers (aOR = 2.28: CI = (1.01-5.14), $p = 0.046$)]. Overall, the prevalence of burnout is alarmingly high among community pharmacists in Saudi Arabia. Consequently, it is crucial to urgently address it through robust initiatives, strategies, and interventions that support the well-being, quality of life, and resilience of community pharmacists.

The association between number of learners and pharmacist and technician levels of burnout

Item Type: Journal Article

Authors: May, Alisyn;Raber, Hanna;Tingey, Ben;Locke, Amy B.;Mullin, Shantel;Nickman, Nancy A. and Qeadan, Fares

Publication Date: 2024

Journal: American Journal of Health-System Pharmacy : AJHP : Official Journal of the American Society of Health-System Pharmacists 81(10), pp. 370–384

Abstract: PURPOSE: Little is known about the relationship between learner load and pharmacist and pharmacy technician burnout. Therefore, the purpose of this study was to examine the association between burnout and the number of learners (residents, students, and new employees) assigned to pharmacists or pharmacy technicians., METHODS: A validated survey to measure burnout and professional fulfillment was administered to employees of a university health system's pharmacy service in 2019. A threshold analysis determined the optimal cutoff for number of learners trained that maximized the ability to predict binary outcomes. Chi-square and Fisher's exact tests were used, and effect sizes between percentages were reported. Finally, the adjusted associations between number of learners and outcomes were assessed using logistic regression., RESULTS: A total of 448 pharmacy staff members were included in the analysis. Of those, 57% (n = 254) worked in ambulatory care, 27.4% (n = 122) worked in an inpatient setting, and 15.7% (n = 70) worked in infrastructure. Pharmacists working in an inpatient setting who reported training 4 or more learners per year indicated significantly higher rates of burnout than those training fewer learners on both a single-item burnout assessment (64.3% vs 31.0%; P = 0.01; effect size, 0.68) and a 10-item burnout assessment (54.8% vs 13.8%; P = 0.01; effect size, 0.91). Similar results were not observed in pharmacists working in ambulatory care and infrastructure positions or in pharmacy technicians., CONCLUSION: Added precepting and training responsibilities may be associated with higher levels of burnout among pharmacy team members, particularly inpatient pharmacists. Copyright Published by Oxford University Press on behalf of the American Society of Health-System Pharmacists 2024.

[The stress, satisfaction and fulfilment of early career pharmacists - a qualitative analysis of a survey on their professional and personal lives](#)

Item Type: Generic

Author: Chee, Pui Ying, Tan, Li Vern, Lee, Caryn Chuen Wei, Choo, Britney Bao Ni and Cheong, Mark Wing Loong

Publication Date: 2023

Publication Details: The International journal of pharmacy practice, , England:

Abstract: OBJECTIVES: This study aims to examine and develop a better understanding of (1) the factors that affect the stress of both their professional and personal lives, (2) the aspects of professional and personal life that affect their satisfaction and fulfilment and (3) what they need to achieve satisfaction and fulfilment in their professional and personal lives., METHODS: A cross-sectional study using a questionnaire was developed. The questionnaire contained 8 questions designed to collect qualitative data on the factors affecting the stress, satisfaction and fulfilment in the professional and personal lives of early career pharmacists (ECPs). Questionnaire responses were analysed using a qualitative content analysis approach and themes describing influential factors were developed., KEY FINDINGS: Some of the factors that contribute to the stress, satisfaction and fulfilment of ECPs were identified. The stressors identified include the workplace environment and relationships with colleagues, the demands of a pharmacist career, the lack of career advancement pathways, job insecurity, relationships and their weaknesses. Factors contributing to satisfaction and fulfilment included supportive work environments and relationships, being appreciated and making a difference, growth, supportive relationships and self-care., CONCLUSIONS: Supporting the well-being of ECPs is important for a resilient, engaged and effective pharmacy workforce. Key interventions include eliminating job insecurity, establishing clear career pathways, improving work environments and relationships and

investing in the development of clinical, technical, communication and managerial skills. Copyright © The Author(s) 2023. Published by Oxford University Press on behalf of the Royal Pharmaceutical Society. All rights reserved. For permissions, please e-mail: journals.permissions@oup.com.

Exploring the relationship between stress and student leadership among student pharmacists Abstract only*

Item Type: Generic

Author: McKeirnan, Kimberly, Supnet, Adriel and Capdeville, Connor

Publication Date: 2022

Publication Details: Currents in pharmacy teaching & learning, 14, (1) pp.46-55. , United States:

Abstract: INTRODUCTION: Previous studies show student pharmacists have a lower health-related quality of life than undergraduate students and are among the most stressed of the health profession students. The long-term effects of chronic stress on healthcare providers can lead to reduced productivity, increased turnover, and medical errors. The goal of this research was to gather information from students who participate in organizational leadership positions regarding their opinions of the benefits of the leadership positions and feelings about stress, burnout, and quality of life., METHODS: Student pharmacists holding leadership positions were asked to complete an electronic survey. Survey questions were based on behavioral assessment instruments. Descriptive statistics were used to analyze demographic data and yes/no question responses. The Spearman Rho test was used to look for associations when comparing variables., RESULTS: Sixty-four students completed the survey. There was a significant association between both self-reported lower quality of sleep and reduced time dedicated to leisure activities with holding concurrent positions ($p = 0.021$, $p = 0.028$, respectively). No significant relationship was found between the number of leadership positions held concurrently,

satisfaction gained from those positions, professional year in pharmacy school, employment during didactic years, or self-perceived test taking performance. Student pharmacists reported taking on leadership positions in student organizations for a variety of reasons, including desire to improve skills, make connections, improve the profession, and gain experience., CONCLUSIONS: Pharmacy faculty mentors may be able to utilize the results of this study to encourage student leaders and better understand the challenges that come with organization leadership positions. Copyright © 2021 Elsevier Inc. All rights reserved.

National survey of pharmacists, intern pharmacists and pharmacy students in Australia: the nature and extent of stress and well-being

Item Type: Generic

Author: Chapman, C. B., Wilson, S. G., Wilson, D. I. and Dunkley, M. K.

Publication Date: 2020

Publication Details: International Journal of Pharmacy Practice, 28, (4) pp.355-361. , United Kingdom: John Wiley and Sons Inc. Abstract: Objectives: A national survey of the Australian pharmacy workforce was conducted to determine the extent to stress experienced, the extent to which it is work-related, how stress is managed, the barriers to getting help and how well prepared the workforce is for stressful situations. There were three objectives: provision of guidance on possible interventions; provision of a baseline for further studies; and provision of information to the Australian Health Practitioner Regulation Authority (AHPRA). Method(s): An online survey incorporating the 10-item Perceived Stress Scale was developed, piloted and launched in October 2016. Pharmacy-related organisations alerted their members to the voluntary survey. Popular pharmacy social media was used. Responses were analysed using SPSS and Excel. The a priori for significance was $P < 0.05$. Key

Findings: In relation to the nature and extent of stress in the workforce and work-life balance, information provided by 1246 respondents out of a workforce of 29 819 revealed high levels of stress (PSS-10 score 20.1 +/- 7.3), with those under 30 years of age and/or with 10 years or less in the pharmacy workforce reporting the highest levels. Just under half the respondents reported dissatisfaction with their work-life balances.

Conclusion(s): Workplace stress is high, particularly among younger members of the workforce. Professional pharmacy associations, schools of pharmacy at Australian universities and AHPRA have been alerted to this issue. The survey should be repeated reasonably soon to determine if any of the key characteristics have changed, particularly if interventions are made to reduce the occurrence of workplace-related stress.
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Work-related stress: the hidden pandemic in pharmacy

Author(s): Dawn Connelly

Source: The Pharmaceutical Journal

Publication date: 18th November 2021

Data from our salary and job satisfaction survey paint a disturbing picture of a profession drowning in rising demand, staff shortages and shifting expectations.

The relationship between organizational climate, job stress, workplace burnout, and retention of pharmacists

Item Type: Generic

Author: Lan, Y. -L, Huang, W. -T, Kao, C. -L and Wang, H. -J

Publication Date: 2020

Publication Details: Journal of occupational health, 62, (1) pp.e12079. , Australia: NLM (Medline).

Abstract: OBJECTIVES: This study explored the relationship between organizational climate, job stress, workplace burnout, and retention of pharmacists. This study adopted a cross-sectional design and conducted a questionnaire survey of

pharmacists working at three teaching hospitals (a district teaching hospital, a regional teaching hospital, and a medical center). METHOD(S): The sampling criteria were a license to practice pharmacy and a willingness to sign a written consent form to participate in this study. RESULT(S): One hundred ten questionnaires were distributed, of which 101 contained valid responses, yielding a valid return rate of 91.82%. A significant correlation was evident between organizational climate, job stress, workplace burnout, and retention. Hierarchical regression analysis revealed that demographic variables, organizational climate, job stress, and workplace burnout had a predictive power of 55.6% for retention ($F = 9.712^{***}$, $P < .001$).

Organizational climate had a significant positive correlated with retention ($\beta = 0.401^*$, $P < .001$). CONCLUSION(S): The results of this study can help hospitals to create a friendly and healthy workplace, instruct hospital managers how to improve their organizational climates, and reduce pharmacists' job stress and workplace burnout, thereby enhancing the quality of pharmacy service and medication safety and eventually improving pharmacists' intention to stay. Copyright © 2019 The Authors and Cathay General Hospital. Journal of Occupational Health published by John Wiley & Sons Australia, Ltd on behalf of The Japan Society for Occupational Health.

Career pathways and advancement

A qualitative analysis of opportunities to strengthen pharmacy technician career pathways across practice settings Abstract only*

Item Type: Journal Article

Authors: Bacci, Jennifer L.; Oster, Natalia; Pollack, Samantha W. and Skillman, Susan M.

Publication Date: 2024

Journal: American Journal of Health-System Pharmacy : AJHP : Official Journal of the American Society of Health-System

Pharmacists

Abstract: **DISCLAIMER:** In an effort to expedite the publication of articles, AJHP is posting manuscripts online as soon as possible after acceptance. Accepted manuscripts have been peer-reviewed and copyedited, but are posted online before technical formatting and author proofing. These manuscripts are not the final version of record and will be replaced with the final article (formatted per AJHP style and proofed by the authors) at a later time., **PURPOSE:** To identify pharmacy technician career pathways across pharmacy practice settings and opportunities to strengthen and expand these pathways., **METHODS:** Interviews were conducted with 17 participants from national pharmacy organizations, community pharmacies, health systems, and academia from March to May 2023. Interview questions were designed to elicit participants' perceptions of factors influencing entry into, recruitment and retention of, and advancement of the pharmacy technician workforce. Interview notes were analyzed using a rapid thematic analysis approach., **RESULTS:** Seven themes were identified, including 3 themes related to entry: (1) healthcare interest and prior exposure facilitate pharmacy technician career discovery; (2) variation in and quantity of entry-level requirements can impede entry into pharmacy technician careers; and (3) proactive promotion of pharmacy technician careers needed. Two themes were related to recruitment and retention: (4) pharmacy technician compensation not aligned with job demands and (5) career ladders or lattices create advancement opportunities. Two themes were related to professional advancement: (6) pharmacy technician advancement limited by weak professional identity and (7) scope-of-practice policies can facilitate pharmacy technician advancement., **CONCLUSION:** This study highlights the challenges pharmacy technicians face in their careers. Key findings stress cultivating a professional identity for pharmacy technicians, establishing career ladders or lattices, and advocating for policies that facilitate pharmacy technician

professional advancement. These efforts are vital for sustaining the pharmacy technician workforce and ensuring quality patient care amidst the changing landscape of the pharmacy profession. Copyright © American Society of Health-System Pharmacists 2024. All rights reserved. For commercial re-use, please contact reprints@oup.com for reprints and translation rights for reprints. All other permissions can be obtained through our RightsLink service via the Permissions link on the article page on our site-for further information please contact journals.permissions@oup.com.

Career outlook and satisfaction in the presence of workload intensification-a survey of early career pharmacists

Item Type: Journal Article

Authors: Bradley, F.;Hammond, M. and Braund, R.

Publication Date: 2024

Journal: International Journal of Pharmacy Practice 32(2), pp. 164–169

Abstract: Background: The demographics of the pharmacy workforce is changing with an increased proportion of pharmacists less than 30 years old (early career pharmacists-ECPs). In parallel, the profession has experienced workload intensification and workforce attrition. It is important to understand ECPs career satisfaction to retain this section of the pharmacy profession. Objective(s): This study aimed to collect data on the current career satisfaction of ECPs, and identify workplace factors that were most important to this group. Further, to use these findings to inform sector recommendations. Method(s): A steering group of ECPs in Aotearoa New Zealand developed a survey based on one used previously. An invitation email was sent to all pharmacists who had been registered for less than 10 years and were members of the Pharmaceutical Society of New Zealand. Result(s): A total of 1418 ECPs were identified and invited to participate, and responses were received by 416 of these. While 90% believe that they are making a useful

contribution to the health of their patients, over half are unhappy and discontented, with over a third dissatisfied with their careers. A large proportion (44%) were considering leaving the profession in the next 5 years. The top three factors for career satisfaction were ability to progress and learn new skills, the people they work with, and the remuneration. Conclusion(s): This study provides a starting point for understanding the current environment and level of dissatisfaction of young pharmacists. There are several areas of concern that need to be addressed if a strong vibrant viable pharmacy profession is to be achieved. Copyright © The Author(s) 2024.

Exploring career choices of pharmacy graduates over 15 years: A cross-sectional evaluation

Item Type: Journal Article

Authors: Fitzpatrick, Katie L.; Allen, Evin A.; Griffin, Brendan T.; O'Shea, Joseph, P.; Dalton, Kieran and Bennett-Lenane, Harriet

Publication Date: 2024

Journal: Currents in Pharmacy Teaching & Learning 16(5), pp. 307–318

Abstract: INTRODUCTION: Career opportunities for pharmacists beyond those commonly associated with the degree continue to emerge. A paucity of literature regarding evaluation of pharmacy graduate career paths over extended periods is apparent. Considering international pharmacy workforce capacity pressures, the primary study aim was to evaluate trends in career paths of pharmacy graduates., METHODS: This study utilised a multimethod approach to access graduate career data using publicly accessible information from LinkedIn R profiles and an online survey. The survey was distributed to all pharmacy graduates of a university (2007-2022). Data from both methods was combined, cross-checked, coded and analysed quantitatively using descriptive and inferential statistics., RESULTS: Data from 69.7% of the university's pharmacy

graduates was collected. Community pharmacy was the most prevalent employment sector (47.7%), followed by industry (21.5%) and hospital (17.7%). A higher proportion of more recent graduates (≤ 5 years post-graduation) work in a community or hospital pharmacy role versus those who graduated greater than five years ago ($\chi^2 = 8.44$, $df = 2$, $p < 0.05$). Post-graduate education was undertaken by 41.3% of graduates. Career satisfaction was high (88.2%) but was lower ($\chi^2 = 11.31$, $df = 1$, $p < 0.05$) for those in community and hospital (82%) versus other sectors (97.5%)., CONCLUSION: This study provides the first analysis of graduate career paths over an extended period, highlighting a novel approach to track pharmacist workforce. While almost two thirds of pharmacy graduates occupy community or hospital roles, a trend of leaving these settings five years post-graduation was evident. Accordingly, this work represents a springboard for additional research to inform future pharmacist workforce planning worldwide. Copyright © 2024 The Authors. Published by Elsevier Inc. All rights reserved.

Career Advancement Insights from Certified Pharmacy Technicians: Enhanced Opportunities for the Pharmacy Technician Workforce Abstract only*

Item Type: Journal Article

Authors: Gray, Jeffrey A.; Rapier, Michelle E.; Robinson, Jessica M. and Wheeler, James S.

Publication Date: 2024

Journal: Journal of the American Pharmacists Association : JAPhA , pp. 102214

Abstract: BACKGROUND: Sustainable career advancement opportunities for pharmacy technicians will be a critical part of patient-centered community pharmacy environments as the role of the pharmacist provider expands., OBJECTIVES: (1) To determine the impact of a Pharmacy Technician Certification Board pharmacy (PTCB) certification on career advancement and professional growth metrics; (2) To assess technicians' role

in advanced pharmacy services before and after certification; and (3) To identify changes in pharmacist services when a certified pharmacy technician (CPhT) was added to the provider team., METHODS: A 73-question web-based survey was distributed to all PTCB certified pharmacy technicians (CPhT) in the United States, Washing D.C., Puerto Rico, Guam, and the US Virgin Islands. The survey was distributed by PTCB in April 2021 with a 28-day collection period. The survey included multiple choice, rating scale, and free text questions centered on five domains: Practice experience, Career aspirations, Compensation, Pharmacy practice motivations, and Impact of COVID-19 pandemic., RESULTS: 23,007 CPhTs completed the survey. Respondents were primarily female (85.5%), age 30-39 (32.8%), and >= 10 years CPhT experience (42.8%). The majority of respondents cited improvement of patient health (77.4%), career advancement opportunities (53.5%), the ability to expand their role during emergencies (e.g., COVID-19) (52.6%), and future career advancement opportunities (51.7%) as benefits of CPhT certification. Increases in job responsibility after certification included changes occurring in roles related to clinical pharmacy services, patient education, preventive health services, provider communication, and staff training. Respondents agreed that PTCB-certification allowed for the expansion of pharmacists' services where they practiced, including clinical services (18.5%), patient education (18.3%), and preventive health services (18.1%)., CONCLUSION: CPhT's value certification for its benefits on career advancement, personal growth, and salary enhancement. Affirmation of skill and training through certification is also recognized to positively influence patient care and the pharmacy's ability to provide advanced patient care and services. Copyright © 2024. Published by Elsevier Inc.

Implementation of a pharmacy technician career ladder and pharmacy technician training program Abstract only*

Item Type: Journal Article

Authors: Thames, Lisa;Johnston, Corry;Cash, Julie;Holder, Martina and Voils, Alissa

Publication Date: 2024

Journal: American Journal of Health-System Pharmacy : AJHP : Official Journal of the American Society of Health-System Pharmacists 81(15), pp. e437–e442

Abstract: PURPOSE: To describe the implementation of a pharmacy technician career ladder and internal technician training program at UF Health Shands Hospital in Gainesville, FL., SUMMARY: As the systems for providing care and receiving reimbursement become more complex, the ability to deliver comprehensive care in the most efficient and effective manner is critical. In order to maximize impact, pharmacists must practice at the top of their license. Recruitment and retention practices that support an optimized pharmacy technician workforce and continued expansion of technician roles are vital to advancement of pharmacy practice. This report describes the efforts to improve technician recruitment, professional development, and retention through the implementation of a technician career ladder and internal training program. The programs contributed to a reduction in technician rolling 12-month turnover rates from 26.72% in July 2015 to 13.1% in March 2023 (a reduction of 51%). Overtime hours as a percentage of total hours worked were reduced from 11.02% in July 2015 to 4.54% in March 2023 (a reduction of 59%). Improvements were noted in pharmacy technician job satisfaction, as evidenced by key employee engagement indicators including responses to the posed statement "Overall, I am a satisfied employee," with a mean score of 3.32 (on a scale of 1-5) in 2015 as compared to 4.2 in 2019 (a 21% increase)., CONCLUSION: Implementation of a pharmacy technician career ladder and technician training program creates a sustainable and effective recruitment and

retention pathway that may favorably impact technician job satisfaction, turnover, and career development opportunities. Copyright © American Society of Health-System Pharmacists 2024. All rights reserved. For commercial re-use, please contact reprints@oup.com for reprints and translation rights for reprints. All other permissions can be obtained through our RightsLink service via the Permissions link on the article page on our site-for further information please contact journals.permissions@oup.com.

[Exploring career advancement of pharmacy support staff within two Queensland hospitals: a qualitative study](#) Abstract only*

Item Type: Generic

Author: Cheong, A. K. W., McMillan, S. S., Anoopkumar-Dukie, S. and Kelly, F. S.

Publication Date: 2022

Publication Details: Journal of Pharmacy Practice and Research, 52, (3) pp.228-235. , Australia: John Wiley and Sons Inc.

Abstract: Background: Internationally, pharmacy assistants and technicians have expanded their roles to allow pharmacists to concentrate on more clinical duties. The Australian model of care is currently exploring avenues for strategic role expansion for these support staff. Aim(s): To qualitatively explore pharmacist and support staff views on the training needs of Australian pharmacy support staff. Method(s): Ethics approval was obtained from both Metro South Human Research Ethics Committee and UnitingCare HREC prior to the commencement of the study. Semi-structured interviews were conducted with personnel from the private and public settings to explore key issues identified in the literature. Interviews were conducted either face-to-face or via telephone between October 2017 and August 2018, with a mean duration of 39.85 min. NVivo 11 qualitative software was used to consolidate the data. The general inductive approach was used for thematic data analysis, which allowed for the emergence of new themes and sub-themes within the research

topic. Result(s): A total of 25 participants consisting of 10 pharmacists and 15 pharmacy support staff were recruited from a private (n = 13) and a public (n = 12) hospital in South-East Queensland. Participants across both pharmacist and pharmacy support staff expressed inadequacy in current certification level, resulting in a need for further on-the-job training. The main reported facilitators to pursue further training were organisational support, career progression and remuneration. The main reported barriers were training cost and lack of time. Conclusion(s): This exploratory study provides critical insights into the evolving needs of support staff that can inform innovative strategic role expansion for efficient and sustainable training. Copyright © 2022 The Society of Hospital Pharmacists of Australia.

Continuing Professional Development (CPD)

[The future of CPD for general practitioners, registered pharmacy staff and general practice nurses in Scotland - qualitative responses from a national survey](#) Abstract only*

Item Type: Generic

Author: Cunningham, D. E., Luty, S., Alexander, A., Waqa, V. and Zlotos, L.

Publication Date: 2020

Publication Details: Education for primary care : an official publication of the Association of Course Organisers, National Association of GP Tutors, World Organisation of Family Doctors, 31, (1) pp.7-14. , United Kingdom: NLM (Medline).

Abstract: In the United Kingdom, undertaking continuing professional development (CPD) is required for revalidation with regulatory authorities for general practitioners, general practice nurses and registered pharmacy staff - pharmacists and pharmacy technicians. A survey of CPD preferences and activities of these four professions has been published and this paper focuses on one qualitative question in the survey: 'Please

describe any changes that you anticipate in the way in which you will undertake CPD over the next 12 months.' Responses were analysed using content analysis, then codes and themes were developed into a coding framework. 1,159 respondents provided comments to the question and five themes were identified: options for learning, time, appraisal and revalidation, people in transition and use of technology. There was a desire for face-to-face courses, for interactive learning and for variety of learning methods. Respondents valued learning with others and Practice-Based Small Group Learning was considered to be flexible and promoted inter-professional learning and socialisation. Lack of time for learning was seen as a barrier for respondents. Respondents considered that CPD was needed to support them as their roles developed in primary healthcare.

Digital Literacy and Competencies

[Digital literacy education for UK undergraduate pharmacy students: a mixed-methods study](#)

Item Type: Journal Article

Authors: Alowais, Mashaël;Nazar, Hamde and Tolley, Clare

Publication Date: 2024

Journal: The International Journal of Pharmacy Practice 32(5), pp. 413–419

Abstract: OBJECTIVES: Digital literacy is increasingly crucial in pharmacy practice, and relevant education and training are required to prepare the future workforce. This study aims to explore the current and planned inclusion of digital literacy education in the undergraduate curricula of UK pharmacy schools., METHODS: A mixed-methods approach was conducted with two phases. The first involved a content analysis of published curricula from all 30 UK pharmacy schools. The second phase included a survey based on the Health Education England Digital Capabilities Framework, distributed to academic staff across all pharmacy schools., KEY FINDINGS: Data from

14 pharmacy schools' curricula were included in the analysis, with 10 reporting digital literacy education. Key themes identified from the analysed documents included understanding of health informatics, applied informatics, information technology skills, and the emerging digital health technology. Nineteen respondents from 16 schools participated in the survey; digital literacy inclusion was reported by 18 participants. There was variable alignment of digital literacy competencies with the Health Education England framework. Digital literacy was mainly integrated into existing teaching sessions, predominantly through self-learning (n = 12). Electronic Health Records and remote counselling were the main focus areas within the curricula. Challenges in implementing digital literacy include a lack of expertise (n = 13), and time constraints (n = 10)., CONCLUSIONS: The trend towards embedding digital literacy in UK pharmacy curricula is clear, but disparities suggest the need for a more unified strategy. Recommendations include establishing a specific digital literacy framework aligned with professional needs, improving accessibility and transparency in curricula documents, and investing in faculty development. Copyright © The Author(s) 2024. Published by Oxford University Press on behalf of the Royal Pharmaceutical Society.

[Evaluating digital competencies for pharmacists](#) Full text available with NHS OpenAthens account*

Item Type: Generic

Author: Lee, Geraldine, Caton, Emma and Ding, Amally

Publication Date: 2023

Publication Details: Research in social & administrative pharmacy : RSAP, 19, (5) pp.753-757. , United States:

Abstract: BACKGROUND: Digital technologies are widely used in healthcare. In the UK, Health Education England developed a framework on digital capabilities so that healthcare professionals could determine their health literacy, evaluate their competencies and identify their learning needs. For pharmacists, specific digital

capabilities were developed - Digital Capabilities for the Pharmacy Workforce., AIM: The aim of this study was to explore the views of pharmacists on digital competency in the workplace and evaluate the suitability of the Digital Capabilities Framework for the Pharmacy Workforce for use within clinical practice., METHODOLOGY: A focus group of experienced pharmacists working within the NHS in the UK was conducted and thematic analysis of the content was undertaken., RESULTS: Seven pharmacy staff took part in an online focus group. They held senior positions across various London NHS hospitals and in community settings. From the content of the focus group, four themes were identified: Theme 1 - Use of digital technology, Theme 2 - Digital competency and training of the pharmacy workforce, Theme 3 - Assessment of digital competency and Theme 4 - Evaluation of the Digital Capabilities Framework for the Pharmacy Workforce. The pharmacists in this study suggested that the Digital Capabilities Framework could be used as a helpful assessment tool to ensure that all staff should have the appropriate digital skills and capabilities to fulfil their pharmacy role., CONCLUSION: With widespread use of digital technologies in practice, there is a need for formal digital technology training for pharmacists. The Digital Capabilities Framework has the potential to be utilised as an assessment tool to ensure pharmacy staff have the appropriate levels of digital skills to fulfil their clinical duties and make their service more efficient. Copyright © 2023. Published by Elsevier Inc.

[Assessing the digital literacy levels of the community pharmacy workforce using a survey tool](#) Abstract only*

Item Type: Generic

Author: Crilly, P., Fletcher, J., Chandegra, N., Khalefa, A., Rouf, S. M., Zein, M. and Kayyali, R.

Publication Date: 2022

Publication Details: The International journal of pharmacy practice, , United Kingdom: NLM (Medline).

Abstract: OBJECTIVES: To investigate the digital literacy of staff in London, UK, community pharmacies and to explore their perceptions about the use of eHealth tools. METHOD(S): The study population was community pharmacy staff (N = 21,346) in Greater London. A survey tool was divided into six sections: Use of the internet; Use of social media; Use of mobile health applications (MHAs); Perception of and practical use of digital health tools; Scenario-based questions and demographics. Responses were analysed in SPSS. Following data collection, Health Education England's (HEE's) Digital Capabilities Framework (DCF) was published. The authors mapped the survey tool retrospectively to the framework. KEY FINDINGS: Almost all respondents (98.0%, n = 551/562) used eHealth tools at work, mainly to access medicine information (89.8%, n = 495/551). Almost one-third (31.7%, N = 178/562) used social media regularly, while many (79.4%, N = 446/562) were aware of MHAs. Self-perceived digital literacy indicated that 63.3% (n = 356/562) deemed themselves to be above average. Under 35s rated their digital literacy more highly than over 35s (P < 0.001). HEE's DCF indicated that actual digital literacy was lower than that of self-perceived. Despite the high use of eHealth tools, respondents were reluctant to recommend these to the public for health advice. CONCLUSION(S): Community pharmacy staff self-report their digital literacy to be high yet do not use these skills for public health purposes. Furthermore, these self-reported skills appear to be over-estimated. Despite high levels of use of digital tools at work, staff do not use them for public health, therefore, further training to build confidence to better utilise them is recommended. Copyright © The Author(s) 2022. Published by Oxford University Press on behalf of the Royal Pharmaceutical Society. All rights reserved. For permissions, please e-mail: journals.permissions@oup.com.

Education and Training

How cultural competence is conceptualised, developed and delivered in pharmacy education: a systematic review

Item Type: Journal Article

Authors: Jarrar, R.;Lim, R.;Richardson, C. L.;Naqvi, A. A.;Rathbone, A. P. and Lau, W. M.

Publication Date: 2024

Journal: International Journal of Clinical Pharmacy 46(1), pp. 40–55

Abstract: Background: It is important to have a pharmacy workforce that is culturally competent to recognise a patient's health beliefs to improve medication adherence and reduce poor treatment outcomes. Aim(s): This systematic review aimed to identify, critically appraise and summarise how cultural competency is conceptualised, developed and embedded in pre-qualification pharmacy education. Method(s): Medline, Scopus, PsychInfo, Web of Knowledge, CINAHL, and Embase databases were searched for relevant papers published in English between January 2012 and December 2021, following PRISMA guidelines. Data from included papers were thematically analysed. Educational quality of papers was appraised using the GREET criteria. This systematic review was registered on PROSPERO, CRD42021295875. Result(s): The review included 47 papers (46 studies) with 18 papers meeting ≥ 9 points on the GREET criteria thus considered of good educational quality. Forty papers focused on educational interventions implemented to pharmacy students only, the remaining included students from different health disciplines. Half of the educational interventions focused on cultural competence in general. Most educational interventions lasted over a week and 21 were compulsory. Cultural competence conceptualisation varied; a focus on knowledge about different cultures or on culturally competent behaviours or a continuum with knowledge at one end and behaviour at the other. Conclusion(s): There is variation in how

cultural competence is embedded in pharmacy programmes, which could be a reflection of the differences in how educators conceptualised cultural competence. Further research is needed to develop a unified understanding of the meaning of cultural competence and how it can be embedded in pharmacy education. Copyright © 2023, The Author(s).

Reconsidering the residency training pathway for ambulatory care pharmacists Abstract only*

Item Type: Journal Article

Authors: Moon, J. Y.;Westberg, S. M. and Sorensen, T. D.

Publication Date: 2024

Journal: Journal of the American Pharmacists Association 64(2), pp. 372–376

Abstract: Ambulatory care, commonly found in primary care settings, is a growing area of pharmacy practice supported by an expanding number of residency training opportunities in this setting. As this practice expands, the profession has chosen to adopt structures that define it as a specialty practice area, a departure from the medical profession. A key example of this definition is the profession's alignment of residency training for this setting within postgraduate year 2 standards. In this commentary, we explore the implications of this approach and share experience from more than 20 years of statewide ambulatory care residency training in Minnesota. We question whether current training expectations are rooted in an objective evaluation of the knowledge and skills required for ambulatory care pharmacy practice. Ultimately, we call on practice leaders to take account of the impact on current training expectations for learners and pharmacy workforce development and seek a rationalization of the training pathway for ambulatory care practice. Copyright © 2024 American Pharmacists Association

Impact of gamification strategies applied to an institutional pharmacy department education

Item Type: Journal Article

Authors: Peroulas, D.;Wollen, J.;Bork, S. J. D.;White, A. and Tolleson, S.

Publication Date: 2024

Journal: Pharmacy Education 24(1), pp. 506–514

Abstract: Background: The methods used by health systems and pharmacy departments to educate personnel and uphold competency standards are variable. Gamification uses motivational affordances, commonly in game-like environments, to increase user engagement. There is limited data on the use of gamification in pharmacy workforce education. Objective(s): To evaluate the impact of gamification strategies on education in a pharmacy department via post-module assessment scores and satisfaction survey results. Method(s): This prospective randomised controlled trial enrolled institutional pharmacy department employees assigned to a control group receiving traditional education or an intervention group receiving gamified education. After completion, employees were given an assessment and a satisfaction survey. The primary endpoint was post-module assessment scores. The secondary endpoint was satisfaction survey scores. Result(s): The study included 55 pharmacists and 17 technicians. The gamification group experienced higher median post-module assessment scores in two modules ($p < 0.0001$). The gamification group also reported higher satisfaction in all three modules, with notable differences in overall median satisfaction scores for two of the five survey questions; these two questions concerned engagement and enjoyment. Conclusion(s): This study demonstrated the positive impact of gamification on pharmacy department personnel's academic performance and engagement. Future studies are needed to investigate gamification elements that primarily affect user knowledge retention. Copyright © 2024 FIP.

Mental health training programs for community pharmacists, pharmacy staff and students: A systematic review

Item Type: Generic

Author: Crespo-Gonzalez, C., Dineen-Griffin, S., Rae, J. and Hill, R. A.

Publication Date: 2022

Publication Details: Research in social & administrative pharmacy : RSAP, 18, (11) pp.3895-3910. , United States: NLM (Medline).

Abstract: BACKGROUND: Primary care is often the first point of contact for people living with mental disorders. Community pharmacists, pharmacy staff and students are increasingly being trained to deliver mental health care. However, there is still a gap in the literature exploring the characteristics of all available mental health training programs and their components and their influence on pharmacists, pharmacy staff and students' outcomes. OBJECTIVE(S): To summarize the evidence evaluating mental health training programs completed by community pharmacists, pharmacy staff and students. More specifically, to explore the components of mental health training programs and identify those that facilitate significant improvements in outcomes. METHOD(S): A systematic review was conducted following the Cochrane handbook and reported according to PRISMA guidelines. A search for published literature was conducted in three databases (PubMed, Scopus, and Web of Science) in July 2021. Eligible studies were included if they described and evaluated the impact of mental health training programs delivered to community pharmacists, pharmacy staff and pharmacy students regardless of design or comparator. The methodological quality of included studies was appraised using both the NIH quality assessment, to evaluate studies with an uncontrolled pre-post design, and the Cochrane EPOC risk of bias assessment, to evaluate studies with a controlled (randomized and non-randomized) study design. RESULT(S): Thirty-three studies were included. Most of the

identified mental health training programs contained knowledge-based components and active learning activities. Changes in participants' attitudes, stigma, knowledge, confidence and skills were frequently assessed. An extensive range of self-assessment and observational instruments used to evaluate the impact of the training programs were identified. Positive improvements in participants' attitudes, knowledge and stigma were frequently identified following participation in training programs. CONCLUSION(S): This systematic review highlights the importance of mental health training programs in increasing pharmacists', pharmacy staff and pharmacy students' skills and confidence to deliver mental health care in community pharmacy. Future research should build upon this basis and further focus on finding the most efficient measures to evaluate these training programs and assess their long-term effectiveness, allowing comparison between programs. Copyright © 2022 The Authors. Published by Elsevier Inc. All rights reserved.

[Identifying mental health training needs of general practice pharmacy workforce to advance practice: a training needs analysis survey](#) Full text available with NHS OpenAthens*

Item Type: Generic

Author: Johnson, C. F. and Earle-Payne, K.

Publication Date: 2022

Publication Details: International Journal of Clinical Pharmacy, 44, (6) pp.1454-1463. , Switzerland: Springer Science and Business Media Deutschland GmbH.

Abstract: Background: Mental health problems are commonly treated in general practice. Pharmacy roles are evolving in general practice; however it is unknown what mental health training the pharmacy workforce needs. Aim(s): To identify and prioritise general practice clinical pharmacists' (GPCPs) and technicians' mental health and psychotropic prescribing learning needs within general practice. Method(s): All 353 GPCPs and technicians, in one health board, were invited to participate in an

online survey, September 2021. The validated Hennessy-Hicks Training Needs Assessment Questionnaire, was embedded in the survey. Participants rated 26 tasks with regard to their confidence in performing the task, and importance to their role. Clinical knowledge was assessed against clinical guidelines and literature. Result(s): Response rate was 26% (92/353); 27% (68/256) GPCPs and 25% (24/97) technicians. Respondents prioritised 'appraising own performance' and 'assessing suicide/deliberate self-harm risk' as high training needs. There were significant variations in prioritisation between GPCPs and technicians; substantial pharmacist agreement (inter-rater correlation 0.713, 95% CI 0.376-0.870, $p = 0.001$). Depression was a priority training need followed by anxiety, dementia, bipolar, attention deficit (hyperactivity) disorder and schizophrenia. For depression treatment, 2 in 3 respondents were unaware of early antidepressant response, dose-response effects for efficacy, and would wait 8-12 weeks before optimising treatment. The majority were aware of individual lithium and antipsychotic cardiometabolic monitoring parameters; 25% identifying the correct monitoring care-bundle. Conclusion(s): Respondents identified a range of training needs which varied between technicians and pharmacist, and staff banding. Addressing these learning needs may help pharmacy staff to better support practices and patients. Copyright © 2022, The Author(s), under exclusive licence to Springer Nature Switzerland AG.

[Disaster preparedness amongst pharmacists and pharmacy students: a systematic literature review](#) Abstract only*

Item Type: Generic

Author: McCourt, Elizabeth, Singleton, Judith, Tippett, Vivienne and Nissen, Lisa

Publication Date: 2021

Publication Details: The International journal of pharmacy practice, 29, (1) pp.12-20. , England:

Abstract: OBJECTIVES: In the aftermath of a disaster, the services provided by pharmacists are essential to ensure the continued health and well-being of the local population. To continue pharmacy services, it is critical that pharmacists are prepared for disasters. A systematic literature review was conducted to explore pharmacists' and pharmacy students' preparedness for disasters and the factors that affect preparedness., METHODS: This review was conducted in April 2020 through electronic databases CINAHL, MEDLINE, Embase, PubMed, Scopus and PsycINFO, and two disaster journals. Search terms such as 'pharmacist*', 'disaster*' and 'prepared*' were used. The search yielded an initial 1781 titles. Articles were included if they measured pharmacists or pharmacy students' disaster preparedness. After screening and quality appraisal by two researchers, four articles were included in final analysis and review. Data were extracted using a data collection tool formulated by the researchers. Meta-analysis was not possible; instead, results were compared across key areas including preparedness ratings and factors that influenced preparedness., KEY FINDINGS: Three articles focused on pharmacy students' preparedness for disasters, and one on registered pharmacists' preparedness. Preparedness across both groups was poor to moderate with <18% of registered pharmacists found to be prepared to respond to a disaster. Factors that potentially influenced preparedness included disaster competency, disaster interventions and demographic factors., CONCLUSION: For pharmacists, the lack of research around their preparedness speaks volumes about their current involvement and expectations within disaster management. Without a prepared pharmacy workforce and pharmacy involvement in disaster management, critical skill and service gaps in disasters may negatively impact patients. Copyright © 2020 Royal Pharmaceutical Society.

Student pharmacists' role in enhancing ambulatory care pharmacy practice

Item Type: Generic

Author: Pamulapati, Lauren G. and Hess, Danielle

Publication Date: 2020

Publication Details: Pharmacy practice, 18, (3) pp.2150. , Spain:

Abstract: With a primary care physician shortage, utilization of pharmacists in the ambulatory care setting has proven to have positive economic and clinical outcomes for the practice and for patients. To extend the reach of the pharmacists, students may assist with patient care activities, such as medication reconciliation, point-of-care testing, and counseling. Evidence has shown that students benefit in building confidence, as well as improved perceptions of interprofessional care, while positive patient outcomes are maintained. There are many methods for schools to integrate these experiences early into their curriculum, as well as for students to explore opportunities on their own.

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Use of cross-sector apprenticeships in pharmacy: is it a sustainable quality education model for pharmacy assistants?

Author(s): Jones et al.

Source: International Journal of Pharmacy Practice 27(2) pp. 201-206

Publication date: April 2019

Objectives: To establish whether undertaking cross-sector pharmacy apprenticeship training to become a pharmacy assistant equally split across the two main pharmacy sectors improves training experience and cross-sector understanding. Methods: A mixed method approach was utilised to explore the experiences of 10 pharmacy apprentices, their employers and education provider. Questionnaires were used to explore apprentices' experiences and views following each 6-month placement. Seven pharmacy employers and the education provider were invited to take part in telephone interviews.

Questionnaires were analysed using simple frequencies; qualitative data were analysed thematically. Key findings: Ten apprentices were recruited, and nine apprentices returned questionnaires from at least one placement. Three hospital-based employers, four community employers and one education provider were interviewed. All participants had found the pilot positive and the cross-sector training to have been a useful experience. Employers noted that the pilot provided the apprentice with valuable insight into the patient's journey and the opportunity to share learning across sectors. Employers also commented that more information regarding the nature of the training would have been useful to help better structure the placement for the apprentice. Conclusions: This paper explores the benefits and challenges of employing a pharmacy apprentice and utilising a novel cross-sector training model. Findings have potential relevance to the training of other pharmacy staff, including pharmacy technicians and pharmacists. They offer early insights into the potential value of pharmacy apprenticeships for training pharmacy assistants, particularly if these are set up across the two main sectors hospital and community pharmacy.

Trends in the pharmacist workforce and pharmacy education

Author(s): Lebovitz et al.

Source: American Journal of Pharmaceutical Education 83(1)

Publication date: February 2019

This commentary is an observation of longitudinal trends in national data on the pharmacist workforce and pharmacy education. Data indicate seismic shifts in supply and demand, from critical shortage to imminent oversupply. The change in the profession to employing more patient-care focused jobs has been observed as slow and minimal, although academia has focused on the clinical training and rapidly increased enrollments. Pharmacy is on the brink of transforming the profession, but several important changes are still required to

alter the current trajectories of supply and demand. Pharmacy schools, associations, and employers must devote all energies to immediate and significant actions that tip the balance in favor of pharmacists of the future.

Education and training for community pharmacists in mental health practice: how to equip this workforce for the future

Abstract only*

Author(s): Wheeler et al.

Source: The Journal of Mental Health Training, Education and Practice

Publication date: September 2014

Purpose: The purpose of this paper is to explore the potential approaches to continuing education and training delivery for community pharmacists to equip them to support mental health consumers and carers with illnesses such as depression and anxiety. Design/methodology/approach: Review of national and international literature about community pharmacists' roles, beliefs and attitudes towards mental health, continuing education delivery for the workforce and training recommendations to equip pharmacy workforce. Findings: Training involving consumer educators was effective in reducing stigma and negative attitudes. Interactive and contextually relevant training appeared to be more effective than didactic strategies. Narratives and role-plays (from the perspective of consumers, carers and health professionals) are effective in promoting more positive attitudes and reduce stigma. Flexible on-line delivery methods with video footage of expert and consumer narratives were preferable for a cost-effective programme accessible to a wide community pharmacy workforce. Originality/value: There is a clear need for mental health education for community pharmacists and support staff in Australia. Training should target reducing stigma and negative attitudes, improving knowledge and building confidence and skills to improve pharmacy staff's perceived value of working

with mental health consumers. The delivery mode should maximise uptake.

Equality, Diversity and Inclusion

[Ko au tenei: This is me - Exploring the lived experience of underrepresented groups with pharmacy services to inform the development of pharmacy case-based learning](#) Abstract only*

Item Type: Journal Article

Authors: Kremer, Lisa J.;Smith, Alesha;Tahitahi, Kelly-Ann;Mapusua, Talai;Anwar, Mudassir;Rutherford, Gill;Cho, Hyunah and Guy, William

Publication Date: 2024

Journal: Currents in Pharmacy Teaching & Learning 16(3), pp. 167–173

Abstract: INTRODUCTION: Demographic and social characteristics of underrepresented groups are often poorly described in pharmacy case-based learning, leading to poor representation of these groups in the pharmacy curriculum. This research project aimed to understand the lived experience of underrepresented groups with pharmacy services and to use this to inform the development of pharmacy case-based student learning materials., METHODS: This was a single centre, grounded theory, qualitative study. Focus groups were undertaken with six underrepresented groups: Maori, Pacific, Asian, LGBTQIA+ (lesbian, gay, bisexual, transgender, queer/questioning, intersex, asexual), disability, and refugee. These focus groups were conducted in Dunedin, Aotearoa New Zealand from July to August 2022. Focus group sessions were recorded and analysed to identify beliefs, ideas, and themes shared between participants and groups., FINDINGS: Participants in all focus groups had a strong desire to be seen and represented in pharmacy cases, however this was conditional on the learning being delivered in a way that upholds their beliefs, values, and voices. From these lived experiences,

cultural, environmental, personal, and social factors were identified as being critical for inclusion in pharmacy case-based learning materials., CONCLUSIONS: The lived experience of underrepresented populations provides critical insights that will enhance pharmacy case-based learning. The key factors that could be included in case-based learning are: ethnicity, personal beliefs, language, disability, gender identity, sexual identity, and family. To achieve health equity and improve cultural awareness and intelligence of our future pharmacy workforce, these experiences need to become more present in curricula. Copyright © 2023. Published by Elsevier Inc.

[Gender balance in Australian pharmacy organisations: Are we there yet?](#)

Item Type: Journal Article

Authors: Pham, Thao Linh;Peterson, Gregory M.;Martin, Alicia and Naunton, Mark

Publication Date: 2024

Journal: Exploratory Research in Clinical and Social Pharmacy 14, pp. 100442

Abstract: Introduction: In the dynamic landscape of healthcare, pharmacists play a critical role in ensuring the well-being of communities, and having solid professional organisations to support pharmacists is essential in crucial activities, including continuing education, advocacy and establishing service standards. Eight pharmacy organisations play vital roles in representing pharmacists in various sectors and collectively contribute to developing, regulating, and promoting the pharmacy profession in Australia. However, a notable lack of female representation in these organisations' leadership roles has led to an increased focus on gender balance and equity., Objective: To determine if the gender distribution in pharmacy leadership aligns with the pharmacy workforce in Australia (64% women) and how it has changed in the five years since our last study on the issue., Setting: Australia., Method: Eight key

Australian pharmacy organisations were identified. The website for each organisation was accessed, and data were recorded for their 2023 boards/committees/councils based on annual reports. Data recorded include name, number of males, number of females, and the gender of the president/chair of each board/committee/council., Results: Data were obtained for 340 separate professional committee members from the eight organisations (including state/territory branches) in 2023. Gender balance in pharmacy organisations has increased significantly since 2018, with women's representation in leadership positions now at 58% (47% 2018)., Conclusion: Gender equity within Australian pharmacy professional organisations has significantly progressed. Copyright © 2024 The Authors.

[A vision to advance gender equality within pharmacy leadership: Next steps to take the profession forward](#) Abstract only*

Item Type: Generic

Author: Mill, Deanna, Burton, Lauren, Lim, Renly, Barwick, Anna, Felkai, Chelsea, Sim, Tin Fei and Dineen-Griffin, Sarah

Publication Date: 2023

Publication Details: Research in social & administrative pharmacy : RSAP, , United States:

Abstract: The United Nations Sustainable Development Goal 5 to 'achieve gender equality and empower all women and girls' aims to eliminate all forms of discrimination against women and girls and ensure their full and effective participation in all spheres of life. In alignment with this, several key international initiatives are making progress towards gender equality in the pharmacy profession. The pharmacy profession must support women and accelerate the progress of women in leadership positions in pharmacy. International and national pharmacy professional bodies can play a critical role in fostering the change required to improve gender equality in all regions and countries. The ongoing development, evaluation and implementation of policies and initiatives are critical to a profession that is increasingly

becoming feminised. Furthermore, there is an imperative to deeply understand the gender-based barriers and develop evidence-based strategies and solutions to support women in pharmacy leadership. There is extensive literature and research on gender inequality and its impact on leadership outside pharmacy which could be used strategically for the profession to develop its own evidence based strategic position. Robust initiatives are needed to ensure that women at all levels including women in pharmacy leadership are empowered and encouraged to participate in their profession. This commentary seeks to generate and contribute to the debate to ensure the profession is proactive and deliberate in tackling the challenges that have traditionally impeded women reaching leadership positions and several critical actions as next steps are proposed. Action is needed to improve gender equality in pharmacy leadership and a profession-wide discussion on ways to progress the above proposed actions is critically needed. Copyright © 2023 Elsevier Inc. All rights reserved.

[Gender balance in pharmacy leadership: Are we making progress?](#) Abstract only*

Item Type: Generic

Author: Martin, Alicia, Naunton, Mark and Peterson, Gregory M.

Publication Date: 2021

Publication Details: Research in social & administrative pharmacy : RSAP, 17, (4) pp.694-700. , United States:

Abstract: BACKGROUND: In recent years there has been an increasing focus on gender balance and equity in leadership positions. In most fields of work, including female dominated professions such as pharmacy, there is an underrepresentation of women in leadership positions. This is despite significant benefits being observed in organisations when diversity in leadership is increased. To date, there has been no research investigating gender balance in pharmacy leadership and decision-making positions in Australia., OBJECTIVE: To explore

gender balance in pharmacy leadership in Australia and how it has changed over the last 20 years., SETTING: This study was conducted in Australia., METHOD: Eight key Australian pharmacy organisations were identified. Data were extracted from their websites or through direct contact with the organisation for the gender breakdown of their boards/committees/councils from the years 1998-2018., RESULTS: In total, data were obtained for 368 separate professional committees, from seven organisations (including 22 state/territory branches), covering the years of 1998-2018. Some organisations provided information for each of the 21 years, while others were only able to provide a few data points. Overall, gender balance in pharmacy organisations has increased over the 21-year period however, there remains a lack of women in leadership positions, particularly in the most senior positions where women held only 24% of president/chair positions over the time period. In 2018 women held 34% of these positions, despite representing 62% of pharmacists in Australia., CONCLUSION: Gender inequity in leadership is prevalent in the Australian pharmacy profession, although it has lessened over time. Based on the trend from 1998 to 2018 it is predicted that women will achieve an average of 50% representation in Australian pharmacy professional committees no sooner than 2029. Copyright © 2020 Elsevier Inc. All rights reserved.

Health and Wellbeing

[Addressing the second victim phenomenon among community pharmacists and its impact on clinical pharmacy practice: a consensus study](#) Abstract only*

Item Type: Journal Article

Authors: Zimonjic, Ivana;Marinkovic, Valentina;Mira, Jose Joaquin;Djokic, Borivoje-Boris and Odalovic, Marina

Publication Date: 2024

Journal: International Journal of Clinical Pharmacy

Abstract: BACKGROUND: The second victim phenomenon, denoting the harmful effects of patient safety incidents on healthcare practitioners, remains insufficiently examined within the pharmacy workforce., AIM: This study aimed to investigate the second victim phenomenon in community pharmacies, focusing on its triggers, impacts on pharmacists' well-being, and effects on pharmaceutical care and safety., METHOD: This consensus study with the Nominal Group Technique involved 27 community pharmacists in three equal groups. The final ranks of the statements scored by participants from 5 to 1 were recalculated using the Van Breda method, combining three distinct data sets with higher values for a higher impact on the output evaluated. Statistics were applied to ascertain event distribution and investigate the potential relationships between event categories and outcomes for patients and pharmacists., RESULTS: "Patient-centric anxiety" (6.8) was the top mental health issue, followed by "Personal responsibility and resilience" and "Future concerns and career aspirations" (6.0 each). The dominant support was "Colleague/Peer support" (5.3). The most frequent patient safety incidents were "Inadequate pharmaceutical service" (8.0) and "Wrong drug dispensed" (7.8). Most errors (63%) were dispensing failures, primarily wrong drug dispensed (44.4%). Of these, 50% were near misses, 25.0% caused no harm, and 16.7% had serious consequences. Field notes suggest contributing factors like inadequate supervision, crowding, and storage issues., CONCLUSION: This study revealed the second victim phenomenon among pharmacists, which potentially stems from breaches in practice standards. The impact on the quality and safety of pharmaceutical care and its influence on pharmacists' well-being should be studied in further studies. Copyright © 2024. The Author(s), under exclusive licence to Springer Nature Switzerland AG.

Neglected workforce: pharmacists and their health-related quality of life

Item Type: Generic

Author: Kurnik-Lucka, M., Pasięka, P., Gorecka-Mazur, A., Rzasas-Duran, E., Pekala, J. and Gil, K.

Publication Date: 2021

Publication Details: Folia medica Cracoviensia, 61, (1) pp.19-35. , Poland: NLM (Medline).

Abstract: BACKGROUND: pharmacists remain on the frontline of public health around the globe and their performance directly impacts patients' safety. So far, to our knowledge, no European study has been dedicated to their health-related quality of life (HQoL). Therefore, the primary aim of our study was to evaluate HQoL of Polish pharmacists utilizing the SF-36 health survey with regard to anthropometric and lifestyle-related variables.

METHOD(S): A total sample screened consisted of 1412 respondents, yet 765 pharmacists (mean age 40, 86.3% females) finally participated in the study. HQoL was assessed with the Medical Outcomes Study 36-Item Short Form Health Survey (SF-36). RESULT(S): The lowest median scores were noted for general health (GH, 50.0) and vitality (V, 60.0) domains. No gender differences regarding physical and mental summary scores were found. Significant difference of HQoL was found among the assessed age groups in several domains, especially physical functioning (PF) and GH ($p < 0.001$) scores, and especially in the group of 51-60-year-old-respondents. Correlations were found between PF ($r = -0.29$, $p < 0.001$), GH ($r = -0.25$, $p < 0.001$) and age as well PF ($r = -0.27$, $p < 0.001$), GH ($r = -0.21$, $p < 0.001$) and BMI. Self-assessed dietary habits were correlated with PF ($r = 0.22$, $p < 0.001$), mental health ($r = 0.25$, $p < 0.001$), GH ($r = 0.27$, $p < 0.001$) and V ($r = 0.30$, $p < 0.001$) scores. CONCLUSION(S): The analysis indicates that pharmacists tend to have similar mental and physical burden according to SF-36, with age, BMI and dietary habits as predominant factors influencing their HQoL. The study presents

unique values for future comparative analyses related, for instance, to the influence of the ongoing pandemic on HQoL of health-care providers.

Job Satisfaction

What drives job satisfaction among community pharmacists? An application of relative importance analysis

Item Type: Generic

Author: Fadare, Olajide O., Witry, Matthew J., Gaither, Caroline A., Doucette, William R. and Schommer, Jon C.

Publication Date: 2023

Publication Details: Exploratory research in clinical and social pharmacy, 9, pp.100237. , United States:

Abstract: Background: Pharmacy employers want to improve pharmacists' job satisfaction, but ratings of job satisfaction are highly subjective, as evaluating job satisfaction involves weighing simultaneously the importance of multiple correlated determinants that are often perceived unequally., Objectives: To 1) describe the application of relative importance analysis in estimating the predictive ability of correlated determinants of job satisfaction, and to rank the determinants in order of relative importance, and 2) explore how the perceived relative importance of job satisfaction predictors may vary across community pharmacists' age, gender, and work setting categories., Methods: Data were obtained from the 2019 National Pharmacy Workforce Survey administered to 96,110 licensed U.S. pharmacists. Multiple regression analysis (MR) and relative weight analysis (RWA) were used to assess the predictive ability of determinants to explain pharmacists' job satisfaction. Subgroup analyses were performed to explore variations in the perceived relative importance of predictors across pharmacists' age, gender and work setting categories., Results: Over the entire sample of community pharmacists, no personal experience of workplace discrimination $RW = 0.0613$,

rank = 1] and less reported engagement in advanced dispensing activities RW = 0.0235, rank = 2] were most associated with greater job satisfaction, as both predictors jointly accounted for 67.5% of the predicted criterion variance (R²). Pharmacists' compensation was observed to have the lowest perceived relative importance for predicting job satisfaction RW = 0.0005, rank = 6], accounting for 0.5% of R². Between-group comparisons showed that, no personal experience of workplace discrimination had the highest perceived relative importance for job satisfaction across pharmacists' age groups, among women, and across most work settings except small chain pharmacies. Within-group comparisons showed that pharmacists' compensation was significantly more important than professional interactions (DELTA_{RW}(PC-PPI) 0.2900 0.0637, 0.5360]) for job satisfaction among pharmacists in large chain pharmacies, while patient-care services was significantly more important than compensation for job satisfaction in independent (DELTA_{RW}(PPS-PC) 0.1761 0.0017, 0.5980]) and health system retail pharmacists (DELTA_{RW}(PPS-PC) 0.4190 0.0444, 0.8303)]., Conclusions: Relative importance analysis corroborated multiple regression and provided a more interpretable presentation of variable influence on community pharmacists job satisfaction as the importance of personal and workplace characteristics in how pharmacists evaluate their job satisfaction varied across age, gender and work setting categories. Copyright © 2023 The Authors.

What drives pharmacists' turnover intention: A systematic review

Item Type: Generic

Author: Thin, Su Myat, Nakpun, Tulakarn, Nitadpakorn, Sujin, Sorofman, Bernard A. and Kittisopee, Tanattha

Publication Date: 2021

Publication Details: Pharmacy practice, 19, (4) pp.2559. , Spain:

Abstract: Background: Pharmacist turnover can negatively impact not only on work efficiency, organizational performance,

work productivity and customer satisfaction, but also on the quality of pharmaceutical services and patient safety. Turnover intention is a core antecedent of turnover. Turnover intention of the pharmacists is affected by many factors related to their organization or job., Objective: To elaborate the factors affecting the pharmacists' turnover intention and their associations. Studies related to any factors affecting pharmacists' turnover intention in all pharmacy settings were included. The QualSyst assessment tool was used for assessing the quality of the included studies., Result: For this systematic review, 3,822 studies were identified. Of these studies,20 studies were included. Thirty factors were explored and a model for pharmacists' turnover intention was produced. Organizational commitment, job satisfaction, career commitment, job stress, perceived organizational support, and work climate were frequently found as drivers to pharmacist turnover intention. Some of 24 other factors had both direct and indirect effects on pharmacist turnover intention via organizational commitment, job satisfaction, career commitment, job stress, and perceived organizational support. Many studies have reported that organizational commitment and job satisfaction had significant influence on pharmacist turnover intention in all settings. Job stress and work climate had direct and indirect effects on turnover intention of hospital pharmacists. Career commitment and perceived organizational support had direct and indirect effects on community pharmacist turnover intention., Conclusion: The factors driving the turnover intention of the pharmacists in different pharmacy practices were different. It indicated that the further interventions should be different to improve the pharmacists' retention in each pharmacy practice setting. Our systematic review is beneficial to guide human resource management in pharmacy and useful for guiding the conceptual framework of future research studies. Copyright: © Pharmacy Practice.

Gender, age and pharmacists' job satisfaction

Author(s): Carvajal and Popovici

Source: Pharmacy Practice 16(4)

Publication date: 2018

A comprehensive literature review was conducted on the concept of job satisfaction in the pharmacist workforce field and the facets it comprises, as well as its measurement, aiming to (i) review the nature, mechanisms, and importance of job satisfaction in the context of the pharmacist workforce, (ii) survey some of the most salient facets that configure job satisfaction, and (iii) discuss validity and measurement issues pertaining to it. Although female pharmacists generally hold less appealing jobs, earn lower wages and salaries, and are promoted less frequently than their male counterparts, they report higher levels of job satisfaction. Age has a U-shape effect on job satisfaction, with middle-age pharmacists less satisfied than both younger and older practitioners. Workload, stress, advancement opportunities, job security, autonomy, fairness in the workplace, supervisors, coworkers, flexibility, and job atmosphere are facets contributing to pharmacists' job satisfaction. Finally, discrepancy exists among researchers in measuring job satisfaction as a single global indicator or as a composite measure derived from indices of satisfaction with key aspects of a job. Understanding the mechanisms that affect pharmacists' job satisfaction is important to employers in their pursuit to respond to practitioners' needs, decrease turnover, and increase productivity. As pharmacists' response to work-related conditions and experiences depends on gender and age, a unique set of rewards and incentives may not be universally effective. Additional research into the dynamics of the forces shaping pharmacists' perceptions, opinions, and attitudes is needed in order to design and implement policies that allocate human resources more efficiently within the various pharmacy settings.

Leadership

Implementation and evaluation of a learner-driven leadership initiative for pharmacy students and pharmacy residents

Item Type: Journal Article

Authors: Corder, Molly; Isch, Jason and Ades, Ryan S.

Publication Date: 2024

Journal: Innovations in Pharmacy 15(1)

Abstract: Introduction: Leadership training is a crucial component of the pharmacy education curriculum. The Accreditation Council for Pharmacy Education (ACPE) emphasizes and encourages the use of different leadership initiatives, and universities employ tactics with varying levels of success to implement these initiatives. "Leadership theory" debates if leadership can be learned or if it is a natural-born skill. This article explores learned leadership and describes a small study deployed to different levels of pharmacy learners to foster leadership confidence and self-awareness. Educational Context and Methods: Second- and third-year didactic students in a leadership elective, voluntary fourth-year Advanced Pharmacy Practice Experience (APPE) students on an ambulatory care rotation, and first postgraduate year (PGY1) pharmacy residents were included in this initiative. Each cohort facilitated a leadership book club discussion and completed professional development activities over the course of their experience. Learners' perspectives on leadership were surveyed utilizing a pre-post survey study, administered prior to beginning the initiative and after completing the initiative. Findings and Discussion: Results demonstrated learners' perceived confidence and self-awareness in their leadership skills increased from pre-survey to post-survey. Evaluation of qualitative responses exhibited that participants found value in adding more leadership development to their pharmacy training. Most participants noted leadership book discussion facilitation as the most valuable part of the initiative and posited they would utilize skills gained through these discussions nearly every day in

their careers. Results suggest PGY1 pharmacy residents showed the most significant increase in their scores from pre- to post-study, while didactic students showed the least significant increase. Implications: Our findings suggest learner-driven leadership initiatives, specifically learner-facilitated book club discussions, are beneficial to incorporate into both didactic and experiential coursework. Implementation of these discussions could be applied in many aspects of the curriculum with minimal resources and a reasonable expectation of perceived benefit to student leadership development. Copyright © Individual authors.

Strategizing the removal of barriers to community pharmacist's business management capabilities Abstract only*

Item Type: Journal Article

Authors: Davey, Braedon J.;Lindsay, Daniel;Cousins, Justin and Glass, Beverley D.

Publication Date: 2024

Journal: Currents in Pharmacy Teaching & Learning 16(12), pp. 102161

Abstract: The community pharmacist may be challenged by their dual role of being both a health care provider and practice manager. This commentary proposes strategies to address the barriers to the management role of the community pharmacist in practice as perceived by stakeholders: pharmacist owners, pharmacist managers, pharmacists, and pharmacy students. Whilst some community pharmacist owners may believe managerial skills are not required for the profession, all stakeholders for the most part agree on the barriers to the management role of the community pharmacist in practice and the strategies to address these barriers. Three barriers were identified: business versus professional dichotomy, transitioning theoretical learned content into a practice setting, and professional overload. Three strategies are proposed to overcome these barriers: developing a dual thinking process, learning practice management from mentors, and the philosophy

of becoming a leader and the team builder. A paradigm shift within the current culture in the profession may be required to overcome the barriers. This commentary also highlights the need to explore leadership in community pharmacy. Copyright © 2024. Published by Elsevier Inc.

Exploring Pharmacy Students' Leadership Styles Using the 5 Voices Assessment Abstract only*

Item Type: Journal Article

Authors: Fierke, Kerry K.;Newman, Kate;Chesnut, Renae;Neely, Stephen and Medina, Melissa S.

Publication Date: 2024

Journal: American Journal of Pharmaceutical Education 88(9), pp. 101256

Abstract: OBJECTIVE: Leadership development assessments are a critical component of student pharmacists' understanding and development of effective team strategies., METHODS: The 5 Voices tool, developed by GiANT Worldwide, was incorporated into the leadership curriculum across 2 colleges of pharmacies for second-year Doctor of Pharmacy (PharmD) students. One public land-grant institution administers the assessment in the fall semester during a 2-h class session as part of a leadership elective leadership course and a private liberal arts institution distributes the 5 Voices assessment to all students during a 1-h spring semester required course., RESULTS: Responses from 456 PharmD students were included in the analysis, with 159 (34.9%) and 297 (65.1%) coming from the University of Minnesota and Drake University, respectively. Overall, 49.1% of PharmD students had nurturer as their foundational (first) voice. No differences were found in the distribution of first voices between institutions. The PharmD data are higher than the nurturer population-level average (43%)., CONCLUSION: Introducing students to the 5 Voices assessment provides an opportunity for them to gain a better understanding of what they can contribute to a team. In addition, because nurturer is a

dominant voice, this understanding can help provide appreciation for other voices necessary for team development. Copyright Published by Elsevier Inc.

[A survey exploring the barriers and drivers to leader and leadership development of the pharmacy workforce](#)

Item Type: Journal Article

Authors: Gondongwe, Xolani D. and Jani, Yogini

Publication Date: 2024

Journal: The International Journal of Pharmacy Practice 32(4), pp. 329–331

Abstract: INTRODUCTION: Leadership is an essential but under-researched domain in advanced pharmacy practice., AIM: To describe pharmacist leadership training experience and ascertain perceptions of barriers/drivers for leadership development., METHODS: Online survey at a UK tertiary-care organization. Questions related to leadership competencies, personal qualities, barriers, and drivers, with Likert scale responses options, were analysed using Microsoft Excel R., RESULTS: Thirty-nine pharmacists responded. Three quarters reported no formal leadership training. Many identified leadership development as essential for career progression. Main driver was a manager or peer support. Barriers included workload, being undervalued, and lack of strategic opportunities., CONCLUSION: Our findings can inform educators and organizations in developing future strategies. Copyright © The Author(s) 2024. Published by Oxford University Press on behalf of the Royal Pharmaceutical Society.

[Factors Affecting Leadership in Pharmacy Students: A Nationwide Survey](#)

Item Type: Journal Article

Authors: Jin, Hye Kyung and Kim, Eunyoung

Publication Date: 2024

Journal: Journal of Healthcare Leadership 16, pp. 213–225

Abstract: Purpose: Leadership is increasingly becoming a priority in the forms of higher education associated with the Fourth Industrial Revolution; however, few studies have examined it in the context of pharmacy education. This study investigated the levels of communication competence, critical thinking disposition, problem-solving ability, and leadership of pharmacy students, and identified factors related to leadership., Methods: This study was conducted using a nationwide cross-sectional online survey with a self-administered questionnaire. A total of 416 third-to-sixth-year pharmacy students from all 35 pharmacy schools in South Korea, completed the survey from September 1 to 15, 2019. Data were analyzed using descriptive statistics, t-tests, Pearson's correlations, and multiple regression analysis. We verified construct validity by performing an exploratory factor analysis., Results: The pharmacy students revealed a moderate level of communication skills, critical thinking disposition, problem-solving ability, and leadership. Significant positive correlations were found among communication competence ($r=0.724$, $p<0.001$), critical thinking disposition ($r=0.615$, $p<0.001$), problem-solving ability ($r=0.599$, $p<0.001$), and leadership. After adjustment for control variables, communication competence ($\beta=0.319$, $p<0.001$) was found to be the most significant predictor of leadership ($F=104.12$, $p<0.001$, $R^2=0.756$)., Conclusion: This study showed that the students' leadership was influenced by their competence in communicating effectively, thinking critically, and solving problems. Pharmacy educators should acknowledge and implement innovative curriculum and assessment approaches in preparing pharmacy students for their professional paths. Copyright © 2024 Jin and Kim.

Leadership Development in Pharmacy Students: A Literature Review Abstract only*

Item Type: Journal Article

Authors: Thobani, Alimah and Anwar, Maria

Publication Date: 2024

Journal: The Canadian Journal of Hospital Pharmacy 77(2), pp. e3496

Abstract: Background: A deeper understanding of leadership competencies and development of these competencies in pharmacy students are essential to enable future pharmacists to take a more advanced role in patient care and serve as interdisciplinary team members and leaders. Such efforts are also needed to help guide succession planning., Objective: To identify and describe the competencies and experiences involved in leadership development for pharmacy students., Data Sources: A literature review was conducted using the MEDLINE, PubMed, and Google Scholar databases (from inception to November 2023), as well as syllabi from pharmacy leadership courses., Study Selection and Data Extraction: Articles discussing leadership competencies in a health care setting and during pharmacy education and training were included. Competencies and experiences related to leadership development were extracted and organized into categories, with each category given a single descriptor., Data Synthesis: A total of 34 resources were included in the analysis, which revealed the following 7 leadership competencies: leadership knowledge, self-awareness, collaboration, leading change, business skills, systems thinking, and lifelong learning., Conclusions: Pharmacy students can develop their leadership abilities through a variety of experiences and activities aligned with the core leadership competencies identified here. Pharmacy schools in Canada can design and offer leadership placements to help enhance students' leadership skills. This study has highlighted activities that may help prepare pharmacy students for leadership roles in the changing landscape of pharmacy practice. Copyright 2024

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Developing Leadership Skills in Pharmacy Education

Item Type: Generic

Author: Ali, Raja, Alnaimi, Shaikha Jabor, Abdulrahim, Sara and Mraiche, Fatima

Publication Date: 2022

Publication Details: Medical science educator, 32, (2) pp.533-538. , United States:

Abstract: Leadership could refer to holding official leadership positions or advocating for patients and the profession. Different pharmacy organizations recommend the inclusion of leadership development in pharmacy education and as such some pharmacy schools have introduced courses or various initiatives which support the development of leadership skills. In this commentary, we discuss means by which various pharmacy schools incorporate ways to develop leadership skills. This commentary also addresses the competencies used to assess leadership skills in pharmacy education., Supplementary Information: The online version contains supplementary material available at 10.1007/s40670-022-01532-x. Copyright © The Author(s) 2022.

Technicians' perception of pharmacist leadership behaviors on their own commitment and turnover intention Abstract only*

Item Type: Generic

Author: Desselle, Shane P., Wasem, Valerie, Hosseini, Sina, Hohmeier, Kenneth C., Woodyard, Ashley and McKeirnan, Kimberly C.

Publication Date: 2022

Publication Details: American Journal of Health-System

Pharmacy : AJHP : Official Journal of the American Society of Health-System Pharmacists, 79, (24) pp.2244-2252. , England: Abstract: PURPOSE: To evaluate technicians' perceptions of how they are supported and supervised by pharmacists through assessment of various components of pharmacists' leadership behaviors in developing the technician workforce. Additional objectives included evaluating levels of pharmacy technician uncertainty about their future, job commitment, and turnover intention in relation to perceived pharmacist leadership behaviors., METHODS: This study employed a cross-sectional design involving administration of an online questionnaire survey. The target population was technicians certified through the National Healthcareer Association. The questionnaire was disseminated to a random, nationwide sample of 3,000 technicians. It solicited responses to an adapted version of the Multifactorial Leadership Questionnaire (MLQ), a 29-item instrument for measuring the frequency of observed pharmacist supervisory behaviors, which are categorized as transactional, transformative, or both. The questionnaire also inquired as to respondents' levels of future uncertainty, profession commitment, organization commitment, and turnover intentions., RESULTS: Responses were acquired from 882 certified pharmacy technicians, who reported their observance of pharmacy supervisory behaviors, as measured by the adapted MLQ, with moderate frequency. Higher technician-reported levels of transformative leadership behavior by pharmacists were associated with lower levels of future uncertainty, greater profession and organization commitment, and diminished turnover intentions., CONCLUSION: Pharmacists' supervisory behaviors, namely transformative leadership behaviors, may be impactful to pharmacy technicians' attitudes and work-related outcomes. The pharmacy profession's leaders and educators might consider these results in educating current and future pharmacists so as to improve the workplace and, potentially, organizational and profession-wide outcomes in the delivery of

care. Copyright © American Society of Health-System Pharmacists 2022. All rights reserved. For permissions, please e-mail: journals.permissions@oup.com.

[Assessing the Impact of a Global Health Fellowship on Pharmacists' Leadership Skills and Consideration of Benefits to the National Health Service \(NHS\) in the United Kingdom](#)

Item Type: Generic

Author: Brandish, Claire, Garraghan, Frances, Ng, Bee Yean, Russell-Hobbs, Kate, Olaoye, Omotayo and Ashiru-Oredope, Diane

Publication Date: 2021

Publication Details: Healthcare (Basel, Switzerland), 9, (7) , Switzerland:

Abstract: Antimicrobial resistance (AMR) poses a global, public health concern that affects humans, animals and the environment. The UK Fleming Fund's Commonwealth Partnerships for Antimicrobial Stewardship (CwPAMS) scheme aimed to support antimicrobial stewardship initiatives to tackle AMR through a health partnership model that utilises volunteers. There is evidence to indicate that NHS staff participating in international health projects develop leadership skills. Running in parallel with the CwPAMS scheme was the first Chief Pharmaceutical Officer's Global Health (CPhOGH) Fellowship for pharmacists in the UK. In this manuscript, we evaluate the impact, if any, of participation in the CwPAMS scheme and the CPhOGH Fellowship, particularly in relation to leadership skills, and consider if there are demonstrable benefits for the NHS. The 16 CPhOGH Fellows were invited to complete anonymised baseline and post-Fellowship self-assessment. This considered the impact of the Fellowship on personal, professional and leadership development. Senior colleagues were invited to provide insights into how the Fellows had performed over the course of the Fellowship. All Fellows responded to both the pre- and post-Fellowship questionnaires with a return of 100%

(16/16) response rate. There was a significant improvement in Fellows' perception of their confidence, teaching abilities, understanding of behaviour change, management and communication skills. However, there was no change in the Fellows' attitude to work. Feedback was received from 26 senior colleagues for 14 of the CPhOGH Fellows. Overall, senior colleagues considered CPhOGH Fellows to progress from proficient/established competencies to strong/excellent when using the national pharmacy Peer Assessment Tool and NHS Healthcare Leadership Model. The majority (88%) of senior colleagues would recommend the Fellowship to other pharmacists. The analysis of the data provided suggests that this CPhOGH Fellowship led to the upskilling of more confident, motivated pharmacist leaders with a passion for global health. This supports the NHS's long-term plan "to strengthen and support good compassionate and diverse leadership at all levels". Constructive feedback was received for improvements to the Fellowship. Job satisfaction and motivation improved, with seven CPhOGH Fellows reporting a change in job role and five receiving a promotion.

[Community pharmacists' perceptions of leadership](#) Abstract only*

Item Type: Generic

Author: Gregory, Paul Am, Seuthprachack, Winston and Austin, Zubin

Publication Date: 2020

Publication Details: Research in social & administrative pharmacy : RSAP, 16, (12) pp.1737-1745. , United States: Abstract: BACKGROUND: Concerns have been expressed regarding a "leadership crisis" in pharmacy. Previous research has identified potential barriers to pharmacists assuming leadership roles and signposted opportunities for further exploration of leadership issues in the profession related to psychological comfort with use of power., OBJECTIVES: This study explored community pharmacists' perceptions of the

effectiveness and impact of power leveraged by formal and informal pharmacy leaders., METHODS: A theoretical framework based on Raven's 7 Sources of Power model was used to guide this research. Semi-structured interviews with community pharmacists in Ontario, Canada were undertaken, and data were coded and categorized using this framework., FINDINGS: 29 pharmacists participated in this study. Participants in this study highlighted over-reliance on charismatic power, underuse of rewards and punishments, and general lack of effectiveness or impact in use of informational, expertise, positional, and relational powers amongst pharmacy leaders. Opportunities to broaden the power repertoire of pharmacy leaders, including leadership education, were identified as potentially valuable for individual leaders and the profession as a whole., CONCLUSIONS: Effectively leveraging power is important for leaders. This study has highlighted patterns of power use amongst community pharmacy leaders and identified opportunities for further research in this area and for continuing professional development for leaders. Copyright © 2020. Published by Elsevier Inc.

Learning from Covid-19

[Experiences and learnings of pharmacists, students, and clinical assistants working collaboratively in a COVID-19 vaccination clinic: a qualitative study](#)

Item Type: Generic

Author: Paradissis, Chariclia, De Guzman, Keshia,R., Barras, Michael, La Caze, Adam, Winckel, Karl, Taufatofua, Natasha and Falconer, Nazanin

Publication Date: 2023

Publication Details: Exploratory research in clinical and social pharmacy, 9, pp.100241. , United States:

Abstract: Background: The involvement of pharmacists and pharmacy clinical assistants (CAs) in hospital clinics has

demonstrated benefits for improving medication safety and care delivery. Internationally, pharmacy staff played a crucial role in the safe storage, provision and administration of vaccines, as well as reinforcement of pharmacovigilance efforts during the COVID-19 pandemic. In Australia, healthcare providers collaborated to rapidly facilitate a phased COVID-19 vaccination program. The perspectives of the pharmacy team, including pharmacy students, involved in implementing novel health services are underexplored in the literature., Objective: To describe the key learnings in how a team of pharmacists, CAs and pharmacy students contributed to the COVID-19 vaccine service, and to explore their preparedness and experiences working at a vaccination clinic within a quaternary hospital., Method: This study involved semi-structured interviews with pharmacy students, CAs and pharmacists. All pharmacy staff who worked in the clinic were invited to participate in the study and a snowball strategy was used to maximise recruitment. The interviews were audio-recorded, transcribed, and analysed using inductive thematic techniques to identify major themes., Results: A total of 11 participants were interviewed including: four pharmacists, four CAs and three undergraduate students. Using thematic analysis, five main themes were identified: (1) Potential for student value and experiential learning; (2) Adaptive procedures and work practices in a rapidly changing environment; (3) Clear leadership, with role clarity, role expansion and interchangeability; (4) Supportive learning environment and (5) Stakeholder drivers for service delivery and to optimise societal benefit. These five themes often interacted with each other, highlighting the complexities of implementing and operating the service., Conclusions: The vaccine clinic service provided a novel and valuable opportunity for students, CAs, and pharmacists to work collaboratively, extending their scope of practice to contribute to better national health outcomes. Participants expressed their support for future

initiatives involving pharmacy students and healthcare staff collaborating in hospital settings. Copyright © 2023 The Authors.

Emotional Burden among Pharmacists and Pharmacy Technicians during the COVID-19 Lockdown: A Cross Sectional Study

Item Type: Generic

Author: Baldonado-Mosteiro, Carmen, Mosteiro-Diaz, Maria, Franco-Correia, Sara and Tardon, Adonina

Publication Date: 2022

Publication Details: International journal of environmental research and public health, 19, (17) , Switzerland:

Abstract: This study aims to investigate the prevalence of depression and anxiety symptoms among Spanish community pharmacists and pharmacy technicians during the coronavirus disease 2019 (COVID-19) lockdown. A descriptive cross-sectional quantitative study was designed. An online survey was administered to participants from 4 to 21 April 2020 using a questionnaire assessing sociodemographic information and the Spanish version of the Hospital Anxiety and Depression Scale (HADS). Informed consent to participate was requested. Participants comprised 1162 pharmacy staff from Spain with an average age of 39.15 +/- 9.718, from 20 to 65 years old, of whom 83% were women, and 50.6% were married. More than half of the participants expressed symptoms of depression (62.7%) and anxiety (70.9%). An important prevalence of anxiety and depression symptoms has been detected among Spanish pharmacists and pharmacy technicians during the COVID-19 lockdown. Being a woman, smoking, feeling fear, feeling stress and believing that pharmacists/pharmacy technicians are very exposed to COVID-19 seem to be associated with higher HADS scores.

[The impact of the COVID-19 pandemic on pharmacy personnel in primary care](#)

Item Type: Generic

Author: Weir, Natalie, Newham, Rosemary, Dunlop, Emma, Ferguson, Aimee and Bennie, Marion

Publication Date: 2022

Publication Details: Primary health care research & development, 23, pp.e56. , England:

Abstract: INTRODUCTION: The coronavirus (COVID-19) pandemic has impacted healthcare worldwide. It has altered service delivery and posed challenges to practitioners in relation to workload, well-being and support. Within primary care, changes in physicians' activities have been identified and innovative work solutions implemented. However, evidence is lacking regarding the impact of the pandemic on pharmacy personnel who work in primary care., AIM: To explore the impact of the pandemic on the working practice (including the type of services provided) and job satisfaction of pharmacists and pharmacy technicians within Scottish general practice. Due to the stressful nature of the pandemic, we hypothesise that job satisfaction will have been negatively affected., METHODS: An online questionnaire was distributed in May-July 2021, approximately 15 months since initial lockdown measures in the UK. The questionnaire was informed by previous literature and underwent expert review and piloting. Analysis involved descriptive statistics, non-parametric statistical tests and thematic analysis., RESULTS: 180 participants responded (approximated 16.1% response rate): 134 pharmacists (74.4%) and 46 technicians (25.6%). Responses indicated greater involvement with administrative tasks and a reduction in the provision of clinical services, which was negatively perceived by pharmacists. There was an increase in remote working, although most participants continued to have a physical presence within general practices. Face-to-face interactions with patients reduced, which was negatively perceived by participants, and

telephone consults were considered efficient yet less effective. Professional development activities were challenged by increased workloads and reduced support available. Although workplace stress was apparent, there was no indication of widespread job dissatisfaction., CONCLUSION: The pandemic has impacted pharmacists and technicians, but it is unknown if changes will be permanent, and there is a need to understand which changes should continue. Future research should explore the impact of altered service delivery, including remote working, on patient care.

[The effects of the COVID-19 pandemic on pharmacy education, staff and students in an Australian setting](#)

Item Type: Generic

Author: Chuang, S., Trevaskis, N. and Mak, V.

Publication Date: 2020

Publication Details: Pharmacy Education, 20, (2) pp.87-90. , Netherlands: International Pharmaceutical Federation.

Abstract: Worldwide, COVID-19 has changed the way Pharmacy Education is being delivered. In Australia there was a rapid shift to online delivery, implementation of new technologies and new models for remote online teaching. The effects of the pandemic on pharmacy education, students and staff are discussed as well as strategies of how to maintain workforce development goals to ensure quality education. Copyright © 2020 FIP.

[Overview of the pharmacy education and workforce development challenges and responses to the global pandemic of COVID-19 in Switzerland](#)

Item Type: Generic

Author: Czock, A.

Publication Date: 2020

Publication Details: Pharmacy Education, 20, (2) pp.106-109. , Netherlands: International Pharmaceutical Federation.

Abstract: The COVID-19 pandemic changed pharmacy

education permanently as it promoted and facilitated online learning for the pharmacy workforce. In regards to examinations, it did not affect the examination mode as exams could be performed under special precautions and respecting predefined safety concepts. Copyright © 2020 FIP.

New and extended roles

Negotiating new roles in general practice: a qualitative study of clinical pharmacists

Author(s): Bradley et al.

Source: British Journal of General Practice 74(738)

Publication date: 2024

Background To address general practice workforce shortages, policy in England has supported the recruitment of 'non-medical' roles through reimbursement funding. As one of the first to receive funding, the clinical pharmacist role offers insight into the process of new role negotiation at general practice level. Aim To identify factors influencing clinical pharmacist role negotiation at practice level, comparing the process under two different funding and employment models. Design and setting Qualitative interview study with staff involved in the following schemes: 1) the national NHS England (NHSE) Clinical Pharmacists in General Practice scheme; and 2) a local clinical commissioning group-funded scheme, providing clinical pharmacist support to general practices in one area of Greater Manchester in the UK. Method Semi-structured interviews with purposive and snowball sampling of pharmacists, GPs, and practice staff took place. The interviews were analysed using template analysis. Results In total, 41 interviews were conducted. The following four factors were found to influence role negotiation: role ambiguity; competing demands and priorities; potential for (in)appropriate utilisation of clinical skills; and level of general practice control over the role. Key differences between the two funding and employment models were the level of influence GPs had in

shaping the role and how adaptable pharmacists could be to practice needs. The potential for inappropriate utilisation was reported under both schemes, but most apparent under the role reimbursement, direct employment model of the NHSE scheme. Conclusion This study has highlighted lessons applicable for the introduction of non-medical roles more widely in general practice. It has provided insight into the factors that can influence role negotiation at practice level and how different funding and/or employment models can impact on this process.

A realist evaluation of the development of extended pharmacist roles and services in community pharmacies

Item Type: Journal Article

Authors: Morris, C.;McDonald, J.;Officer, T. N.;Fa'asalele Tanuvasa, A.;Smiler, K.;Parore, N.;Dunn, P.;McKinlay, E.;Kennedy, J.;McBride-Henry, K. and Cumming, J.

Publication Date: 2024

Journal: Research in Social & Administrative Pharmacy : RSAP 20(3), pp. 321–334

Abstract: BACKGROUND: Internationally, community pharmacy models of care have been moving away from a focus on dispensing to extended, clinically-focused roles for pharmacists. OBJECTIVE(S): To identify how community pharmacy strategies were being implemented in Aotearoa New Zealand; how changes were expected to influence health and health system outcomes; what extended services were being delivered; the responses of pharmacists, other health professionals and consumers to these developments; and the contexts and mechanisms supporting the successful implementation of new community pharmacy services. METHOD(S): A realist evaluation methodology was employed, to explore a complex policy intervention. Realist evaluation explores the contexts (C) within which initiatives are introduced and identifies the mechanisms (M) triggered by different contexts to produce outcomes (O). Realist evaluation processes iteratively develop, test, and refine

CMO configurations. In this study, initial programme theories were developed through key government and professional policy documents, then refined through key informant interviews, a survey and interviews with pharmacists and intern (pre-registration) pharmacists, and finally, 10 case studies of diverse community pharmacies. RESULT(S): Four intermediate health service outcomes were identified: development of extended community pharmacist services; consumers using extended community pharmacist services; more integrated, collaborative primary health care services; and a fit-for-purpose community pharmacy workforce. Enabling and constraining contexts are detailed for each outcome, along with the mechanisms that they trigger (or inhibit). CONCLUSION(S): There are wide-ranging and disparate levers to support the further development of extended community pharmacy services. These include aligning funding with desired services, undergraduate educators and professional leaders setting expectations for the pharmacists' role in practice, and the availability of sufficient funding and time for both specific extended service accreditation and broader postgraduate training. However, no simple "fix" can be universally applied internationally, nor even in pharmacies within a single jurisdiction, to facilitate service development. Copyright © 2023. Published by Elsevier Inc.

[Exploring the potential extended role of community pharmacy in the management of osteoarthritis: A multi-methods study with pharmacy staff and other healthcare professionals](#)

Item Type: Journal Article

Authors: Simkins, J.; Holden, M. A.; Babatunde, O.; White, S.; Nicholls, E.; Long, A.; Dziejczak, K.; Chudyk, A.; Todd, A.; Walker, C.; Stanford, C.; Cottrell, E.; Edwards, J.; Healey, E. L.; Cork, T.; Mallen, C. and O'Brien, N.

Publication Date: 2024

Journal: Musculoskeletal Care 22(1), pp. e1873

Abstract: INTRODUCTION: Osteoarthritis is the commonest form of chronic joint pain, which patients often self-manage before seeking healthcare advice. Patients frequently seek advice from community pharmacies, and a recent policy has recommended integrating community pharmacies into long-term condition pathways. This study explored community pharmacy teams' (CPs) and other healthcare professionals' (HCPs) views on community pharmacies providing an extended role for osteoarthritis management, identifying potential barriers and facilitators to this. METHOD(S): A multi-methods study comprising surveys of CPs and other HCPs, followed by qualitative interviews. Descriptive statistics were used in an exploratory analysis of the survey data. Qualitative data were analysed using reflexive thematic analysis and the identified barriers and facilitators were mapped to the Theoretical Domains Framework. RESULT(S): CPs and other HCPs in the surveys and interviews reported that an extended role for osteoarthritis management could include: a subjective assessment, explaining the joint problem and its treatment, medication management and support for self-care. There was less consensus on diagnosing the problem as OA and completing an objective assessment. A key facilitator was training to deliver the role, whilst barriers were high workload and lack of access to General Practitioner medical records. DISCUSSION: Acceptable elements of an extended community pharmacy role for osteoarthritis centre around the provision of information, advice on medication and supported self-management. CONCLUSION(S): CPs are well placed to contribute towards evidenced-based osteoarthritis management. Feasibility testing of delivering the extended role is needed and future implementation requires training for CPs and raising public awareness of the extended role. Copyright © 2024 The Authors. Musculoskeletal Care published by John Wiley & Sons Ltd.

Cultures of support and resilience are associated with certified pharmacy technicians embracing new roles Abstract only*

Item Type: Generic

Author: Desselle, Shane P., Wasem, Valerie, Woodyard, Ashley, Hosseini, Sina, Hohmeier, Kenneth C. and McKeirnan, Kimberly C.

Publication Date: 2023

Publication Details: Research in social & administrative pharmacy : RSAP, 19, (2) pp.316-321. , United States:

Abstract: BACKGROUND: Various technological, economic, and regulatory factors are creating opportunities for pharmacy technicians to take on additional responsibilities. Technicians in the broader sense have indicated a preference for expanded scope of duties; however, it is not known what drives technicians' greater inclinations to accept these new roles., OBJECTIVE: The purpose of this study was to determine the association of various work-related factors, such as co-worker support, pharmacist-leadership style, future uncertainty, their own organizational commitment, and personal characteristics of technicians, including their resilience, on pharmacy technicians' willingness to take on emerging responsibilities in pharmacy., METHODS: A self-administered questionnaire survey was disseminated through email to a national, randomized sample of 3000 technicians certified through the National Healthcareer Association (NHA). The questionnaire solicited data on willingness to participate in either of 13 emerging responsibilities as well as resilience, perceived transformative leadership behaviors of supervising pharmacists, future uncertainty, coworker support, organizational commitment, and various personal and practice-related variables. Following the use of principal component analyses for item purification and summation of various scale responses, inferential analyses were conducted via independent sample t-tests, one way analyses of variance, and Pearson's product moment correlation, as appropriate., RESULTS: From 2906 surveys delivered, 878 were

returned, with 745 of them providing completed responses on willingness to participate in emerging responsibilities. Willingness on most items/responsibilities was highly rated, with many means being at least 4 on a 5-point scale, though some were lower and perhaps a reflection of less exposure to these by way of their personal experience or practice setting. Technicians' resilience, their coworker support, organizational commitment, and perceived transformative behaviors undertaken by their supervising pharmacists were all highly associated with willingness to engage., CONCLUSIONS: Pharmacists, pharmacy technician peers, and organizations can contribute to a culture that is supportive for pharmacy technicians and may serve to encourage commitment, resilience, and willingness to embrace new, or emerging responsibilities. Copyright © 2022 Elsevier Inc. All rights reserved.

Expanding pharmacy roles and the interprofessional experience in primary healthcare: a qualitative study Full text available with NHS OpenAthens account*

Author(s): Silvaggi et al.

Source: Journal of Interprofessional Care 31(1)

Publication date: January 2017

The pharmacist role is undergoing significant changes which are reshaping the way primary healthcare is delivered throughout England. Due to increased physician workload and focus on primary healthcare, the pharmacist role has expanded to provide enhanced patient services, integrating into general practice (GP) settings and working more closely as a member of the healthcare team. However, the experiences of pharmacists and team members are yet to be explored. The proposed study aims to explore the experiences, thoughts, and perceptions of a purposive sample of pharmacists, physicians, and nurses working in 10 GP clinics throughout the southeast of England. Interprofessional relationships, power dynamics, changing professional roles, and barriers and facilitators to the integration

of the pharmacist role will be explored. An exploratory multiple case study design will be used to investigate interprofessional experiences within and between clinics. In-depth interviews will be completed with each participant. A thematic analysis will identify themes and patterns from the interview data. Results are expected to produce recommendations to help facilitate the integration of pharmacists in their new role and will have implications for interprofessional collaboration and interprofessional education which are important for delivering safe and effective care.

Examining the emerging roles for pharmacists as part of the urgent, acute and emergency care workforce

Author(s): Aiello et al.

Source: Pharmaceutical Journal

In the future urgent, acute and emergency medicine clinical workforce, new models of care and care delivery need to be developed, in order to maintain and enhance standards of safe and accessible patient care. A departure from traditional (doctor-led) approaches to workforce planning, and an understanding of scope and governance surrounding emerging clinical roles is necessary to develop a sustainable, multi-skilled workforce across primary, community and secondary care.

New roles in pharmacy – learning from the All Wales Common Ailments Scheme

Author(s): Mantzourani et al.

Source: International Journal of Pharmacy Practice 24 pp. 298-102

Publication date: 2016

Objectives The objective of this study was to explore the perceptions of stakeholders on a national pilot of a new service, the 'Choose Pharmacy' Common Ailments Service (CAS) in Wales. Methods Methods used were semi-structured interviews with stakeholders involved in development and delivery of the

CAS. Snowball sampling was employed and invites were extended to eight of 13 pharmacies offering CAS in Cwm Taf LHB, the practice managers at two associated general practitioner surgeries and two local and national level commissioners. Key findings The benefits of encouraging self-care by patients were widely recognised in terms of their impact on patients, health professionals and wider society. Although some challenges of introducing a new service were identified, these did not appear to be insurmountable. Conclusions CAS was welcomed by stakeholders in terms of its potential benefits. Results are therefore encouraging for policy makers involved in the implementation of other new roles within community pharmacy in the UK and beyond.

Protected UK – Clinical pharmacist interventions in the UK critical care unit: exploration of relationship between intervention, service characteristics and experience level

Author(s): Rudall et al.

Source: The International Journal of Pharmacy Practice

Publication date: August 2017

PURPOSE Clinical pharmacist (CP) interventions from the PROTECTED-UK cohort, a multi-site critical care interventions study, were further analysed to assess effects of: time on critical care, number of interventions, CP expertise and days of week, on impact of intervention and ultimately contribution to patient care. METHODS Intervention data were collected from 21 adult critical care units over 14 days. Interventions could be error, optimisation or consults, and were blind-coded to ensure consistency, prior to bivariate analysis. Pharmacy service demographics were further collated by investigator survey. KEY FINDINGS Of the 20 758 prescriptions reviewed, 3375 interventions were made (intervention rate 16.1%). CPs spent 3.5 h per day (mean, \pm SD 1.7) on direct patient care, reviewed 10.3 patients per day (\pm SD 4.2) and required 22.5 min (\pm SD 9.5) per review. Intervention rate had a moderate inverse correlation

with the time the pharmacist spent on critical care ($P = 0.05$; $r = 0.4$). Optimisation rate had a strong inverse association with total number of prescriptions reviewed per day ($P = 0.001$; $r = 0.7$). A consultant CP had a moderate inverse correlation with number of errors identified ($P = 0.008$; $r = 0.6$). No correlation existed between the presence of electronic prescribing in critical care and any intervention rate. Few centres provided weekend services, although the intervention rate was significantly higher on weekends than weekdays. CONCLUSIONS A CP is essential for safe and optimised patient medication therapy; an extended and developed pharmacy service is expected to reduce errors. CP services should be adequately staffed to enable adequate time for prescription review and maximal therapy optimisation.

New ways of working

[Embedded on-site aged care pharmacists in Australia: Insights from early adopters of a new workforce model](#)

Item Type: Journal Article

Authors: Cross, Amanda J.; Bell, J. S.; Steeper, Michelle and La Caze, Adam

Publication Date: 2024

Journal: Australasian Journal on Ageing 43(1), pp. 79–90

Abstract: OBJECTIVE: To explore the roles of early adopters of Australia's embedded on-site pharmacist model in supporting quality use of medications in residential aged care facilities (RACFs)., METHODS: Qualitative semistructured interviews were conducted with 15 pharmacists working as embedded on-site pharmacists, or beyond the scope of traditional consultant pharmacist roles in Australian RACFs. Interviews were audio-recorded, transcribed and thematically analysed independently by two investigators using an inductive approach. Deductive analysis was also undertaken using a knowledge broker framework: knowledge manager, linkage agent and capacity builder., RESULTS: Dominant themes were roles and benefits of

embedded pharmacists, factors associated with success and challenges. Roles and benefits included (1) resident-level interventions and an enhanced ability to provide collaborative outcome-focussed resident-centred care, including timely input and follow-up, and improved relationships with residents, family and interdisciplinary team; and (2) system-level interventions such as contributing to clinical governance and quality improvement. Factors associated with success included personal capabilities and approach of the pharmacist, and organisational culture and sector-wide support. Challenges included pharmacist workforce shortages, perceived lack of pharmacist readiness and difficulty determining an appropriate service model. Deductive coding demonstrated roles of embedded pharmacists were consistent with all three activities of a knowledge broker., CONCLUSIONS: This study highlights the resident- and system-level roles and benefits of embedded on-site pharmacists, and provides a framework for defining this emerging workforce model in Australian RACFs. Copyright © 2023 The Authors. Australasian Journal on Ageing published by John Wiley & Sons Australia, Ltd on behalf of AJA Inc'.

[Evaluation of a remote hybrid staffing model for investigational drug service pharmacists](#) Abstract only*

Item Type: Journal Article

Authors: Miller, Travis; Froerer, Camryn; Hill, Cameron and Schmutz, Howard Weston

Publication Date: 2024

Journal: American Journal of Health-System Pharmacy : AJHP : Official Journal of the American Society of Health-System Pharmacists 81(15), pp. e412–e418

Abstract: PURPOSE: This project compared the time to complete investigational prescription drug order verification by investigational drug service (IDS) pharmacists in an onsite vs offsite (hybrid) staffing model, evaluating the impact of remote work on verification time., METHODS: Parenteral IDS drug

orders from August 2019 through June 2022 were analyzed. Electronic medical records were timestamped for each order, first verification, second verification, and medication administration. The project was divided into four 6-month time periods to allow for 2 independent comparisons of onsite vs hybrid staffing models. A survey was given retrospectively to IDS pharmacists for the last hybrid timeframe to assess work satisfaction and burnout., RESULTS: A total of 4,398 orders were evaluated. The time from order entry to first verification was 14 minutes (n = 1,248) during the first onsite time period compared to 13 minutes (n = 1,042) during the first hybrid period (P = 0.003). The time for order verification was similar between the second onsite and hybrid periods (12 minutes n = 1,041] vs 10 minutes n = 1,067], respectively; P < 0.0001). The staff satisfaction survey for the hybrid model showed high levels of job satisfaction and no self-reported burnout., CONCLUSION: The remote hybrid staffing model did not result in a meaningful change in the time from order placement to medication administration within the IDS pharmacy. Hybrid staffing also resulted in greater job satisfaction among IDS pharmacists. This study highlights the benefits of implementing remote work practices in the pharmacy practice setting. Copyright © American Society of Health-System Pharmacists 2024. All rights reserved. For commercial re-use, please contact reprints@oup.com for reprints and translation rights for reprints. All other permissions can be obtained through our RightsLink service via the Permissions link on the article page on our site-for further information please contact journals.permissions@oup.com.

[Releasing GP capacity with pharmacy prescribing support and new ways of working: a prospective observational cohort study](#)

Author(s): Maskrey et al.

Source: British Journal of General Practice 68(675)

Publication date: 2018

Background General practice in the UK is experiencing a workforce crisis. However, it is unknown what impact prescribing support teams may have on freeing up GP capacity and time for clinical activities. Aim To release GP time by providing additional prescribing resources to support general practices between April 2016 and March 2017. Design and setting Prospective observational cohort study in 16 urban general practices that comprise Inverclyde Health and Social Care Partnership in Scotland. Method GPs recorded the time they spent dealing with special requests, immediate discharges, outpatient requests, and other prescribing issues for 2 weeks prior to the study and for two equivalent periods during the study. Specialist clinical pharmacists performed these key prescribing activities to release GP time and Read coded their activities. GP and practice staff were surveyed to assess their expectations at baseline and their experiences during the final data-collection period. Prescribing support staff were also surveyed during the study period. Results GP time spent on key prescribing activities significantly reduced by 51% (79 hours, P<0.001) per week, equating to 4.9 hours (95% confidence interval = 3.4 to 6.4) per week per practice. The additional clinical pharmacist resource was well received and appreciated by GPs and practices. As well as freeing up GP capacity, practices and practitioners also identified improvements in patient safety, positive effects on staff morale, and reductions in stress. Prescribing support staff also indicated that the initiative had a positive impact on job satisfaction and was considered sustainable, although practice expectations and time constraints created new challenges. Conclusion Specialist clinical pharmacists are safe and effective in supporting GPs and practices with key prescribing activities in order to directly free GP capacity. However, further work is required to assess the impact of such service developments on prescribing cost-efficiency and clinical pharmacist medication review work.

Professional status and registration

[Why get involved? A cross-sectional survey of factors that influence student pharmacist membership in professional organizations](#) Abstract only*

Item Type: Journal Article

Authors: Fredrickson, Mary E.;Clapper, Austin;Clapper, Elizabeth;Novak, Jolene;Abdlrasul, Fady;Hess, Karl;Toma, Yousef;Salvo, Marissa C. and Gothard, M. D.

Publication Date: 2024

Journal: Currents in Pharmacy Teaching & Learning 16(7), pp. 102098

Abstract: INTRODUCTION: Understanding factors that motivate and deter student pharmacists from joining professional pharmacy organizations may assist schools and organizations in determining ways to recruit, engage, and support the next generation of pharmacy professionals. The objective is to identify motivating and hindering factors related to student pharmacist membership in professional pharmacy organizations., METHODS: A cross-sectional survey was sent to the American Association of Colleges of Pharmacy Student Services Personnel community members for distribution to student pharmacists at their respective schools. The survey collected demographic data, determined the extent of student membership and leadership involvement within professional organizations, and assessed factors that motivate and deter student pharmacist membership in organizations., RESULTS: 467 students completed the survey. Seventy percent indicated they are currently involved in one or more pharmacy organizations. Final-year students were less likely to join organizations than other professional years ($p < 0.001$). Women ($p = 0.001$) were more

likely to join and hold leadership positions, as were younger-aged students ($p = 0.001$) and those living on or near campus ($p = 0.049$). Opportunities for professional development was the highest-ranked factor motivating students to join a professional organization, and the time required for participation was the highest-ranked hindering factor., CONCLUSION: Numerous factors affect student pharmacists' decisions to join professional pharmacy organizations. This information may assist in determining ways to recruit and engage students starting early in their pharmacy education. It may be prudent to redefine student engagement within professional organizations, especially in the context of new generations of students. Copyright © 2024 Elsevier Inc. All rights reserved.

Primary care and Community

[A qualitative study exploring the challenges and enablers of pharmacists with a recent background in community pharmacy transitioning into primary care](#) Abstract only*

Item Type: Journal Article

Authors: Campbell, Ian;Harrison, Heather and Kurdi, Amanj

Publication Date: 2024

Journal: International Journal of Clinical Pharmacy 46(3), pp. 704–713

Abstract: BACKGROUND: Pharmacists are an increasing part of the primary care health care team in Scotland. Recruitment to this expanding sector has largely come from community pharmacy. However, it is unknown if these pharmacists have specific needs to perform their role within the primary care team., AIM: To explore the perceived challenges and enablers of community pharmacists transitioning into primary care pharmacist roles., METHOD: Eight pharmacists (5 female, 3 male, median age 32) across Scotland's largest regional health

board who previously practised in community pharmacy participated in a recorded, semi-structured interview via Microsoft Teams R to explore their challenges and enablers of transition into primary care. Recordings were transcribed, verified, and thematic analysis then undertaken., RESULTS: Five themes were identified: challenging transition, transferable skills, transferable training from community pharmacy, training needs for primary care role, and benefits of structured learning. Participants reported lack of opportunity to apply their clinical knowledge and for professional development in community pharmacy., CONCLUSION: Pharmacists in our study reported a range of challenges (such as examination skills, improved clinical and therapeutics knowledge) required to practice in primary care, while their regular patient contact and knowledge of community pharmacy workings enabled their transition. Previous sectors of practice should be taken into consideration when inducting pharmacists into a new role and background specific inductions may need to be implemented to support these pharmacists work autonomously at an advanced level. Copyright © 2024. The Author(s), under exclusive licence to Springer Nature Switzerland AG.

["You don't get side effects from social prescribing"-A qualitative study exploring community pharmacists' attitudes to social prescribing](#)

Item Type: Journal Article

Authors: Rathbone, A. P.; Pearson, H.; Akinyemi, O.; Cartwright, N.; Tierney, S.; Rowlands, G. and Lindsey, L.

Publication Date: 2024

Journal: PLoS ONE 19(5), pp. e0301076

Abstract: Objectives Social prescribing is an approach that enables the referral of patients to non-clinical support and places a focus on holistic care. This study explored views of community pharmacists regarding social prescribing in pharmacies. Study design A qualitative phenomenological approach was used.

Methods A convenience sample of eleven community pharmacists from Northern England were recruited via social media (Twitter, Facebook) and took part in a semi-structured, one-to-one qualitative interviews that asked about their knowledge of social prescribing, the advantages of community pharmacist involvement and any barriers they predicted to its implementation. Interviews were transcribed verbatim and thematically analysed. Results The sample included largely male pharmacists (63.3%) with less than five years' experience (45.5%) and included pharmacists working as employees (63.6%), locums (27.3%) and owners (9%) in both chain (36%) and independent stores (54.5%). The main findings indicate an enthusiasm for but limited understanding of social prescribing. Factors which appeared to influence involvement were training requirements and time available to complete an additional service in busy pharmacies. Opportunities centred on the broader pharmacy team's role to optimise health outcomes. Conclusions The findings indicate pharmacists may be an underused resource due to a poor understanding of the full scale and scope of social prescribing beyond health promotion, lifestyle interventions. Further work is needed to explore the transferability of the findings to the broader pharmacy workforce to understand how social prescribing can be positioned within pharmacy practice. Copyright © 2024 Rathbone et al. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

[Community pharmacy teams' experiences of general practice-based pharmacists: an exploratory qualitative study](#)

Author(s): Karampatakis et al.

Source: BMC Health Services Research 20(431)

Publication date: 2020

Background: In England, since 2015, there has been a formal drive to integrate pharmacists into general practice as a new healthcare service. Research efforts have offered insights into how general practice-based professionals and patients view the service, however, they took no account of community pharmacy teams' opinions. There have been anecdotal statements about opposition from community pharmacies to the service, due to fears of losing business. The aim of the current study was to identify the experiences and perceptions of community pharmacy teams regarding pharmacists' presence in general practice.

Methods: The National Health Service Choices website was used to identify community pharmacies within a radius of two miles from eight West London general practices. The search resulted in 104 community pharmacies which were all contacted via telephone. Pharmacy staff who verbally expressed their interest to participate were then provided with the study's documents. Qualitative, face-to-face, semi-structured interviews were conducted inside the pharmacy from which each participant was recruited. Interviews lasted 30 to 45 min and were audio-recorded. Audio-recordings were transcribed verbatim and transcripts analysed thematically.

Results: Forty-eight community pharmacy staff participated. Four themes were discerned: awareness ("I knew that [pharmacists] have already been implemented [in general practice] but I haven't really followed it ... where does the pharmacist role come?"); interactions ("I'm just so pleased that there's a pharmacist professional in the general practice ... because we speak the same language!"); patient care ("if I was a patient knowing that there is a general practitioner and a pharmacist [in general practice], I would ... think 'nothing can go wrong at the moment'"); and funding challenges ("if general practices take on the extra responsibility of stop smoking or flu vaccination campaigns ... financially, this would affect this pharmacy").

Conclusions: The current study revealed the perceived impact of general practice-based pharmacists on community pharmacies would be improved

communication between pharmacies and practices. Findings will inform policy so that any future framing of pharmacists' presence in general practice considers the needs of community pharmacies.

[Pharmacist joint-working with general practices: evaluating the Sheffield Primary Care Pharmacy Programme: a mixed-methods study](#)

Author(s): Marques et al.

Source: BJGP Open 2(4)

Publication date: 2018

Background The NHS in the UK supports pharmacists' deployment into general practices. This article reports on the implementation and impact of the Primary Care Pharmacy Programme (PCPP). The programme is a care delivery model that was undertaken at scale across a city in which community pharmacists (CPs) were matched with general practices and performed clinical duties for one half-day per week. **Aim** To investigate (a) challenges of integration of CPs in general practices, and (b) the perceived impact on care delivery and community pharmacy practice. **Design & setting** This mixed-methods study was conducted with CPs, community pharmacy employers (CPEs), scheme commissioners (SCs), and patients in Sheffield. **Method** Semi-structured interviews (n = 22) took place with CPs (n = 12), CPEs (n = 2), SCs (n = 3), and patients (n = 5). A cross-sectional survey of PCPP pharmacists (n = 47, 66%) was also used. A descriptive analysis of patient feedback forms was undertaken and a database of pharmacist activities was created. **Results** Eighty-six of 88 practices deployed a pharmacist. Although community pharmacy contracting and backfill arrangements were sometimes complicated, timely deployment was achieved. Development of closer relationships appeared to facilitate extension of initially agreed roles, including transition from 'backroom' to patient-facing clinical work. CPs gained understanding of GP processes and patients' primary

care pathway, allowing them to follow up work at the community pharmacy in a more timely way, positively impacting on patients' and healthcare professionals' perceived delivery of care. Conclusion The PCPP scheme was the first of its kind to achieve almost universal uptake by GPs throughout a large city. The study findings reveal the potential for CP–GP joint-working in increasing perceived positive care delivery and reducing fragmented care, and can inform future implementation at scale and at practice level.

Perspectives of pharmacists in general practice from qualitative focus groups with patients during a pilot study

Item Type: Generic

Author: Mann, Claire, Anderson, Claire, Boyd, Matthew, Karsan, Yasmin and Emerson, Tristan

Publication Date: 2022

Publication Details: BJGP open, 6, (2) , England:

Abstract: BACKGROUND: Utilising skill mix in general practice is proposed as a solution to the demand-supply issue. Pharmacists can play an important role in this context, leading to an increase in training and funding for independent prescriber roles. A role for pharmacists in general practice was funded, piloted, and evaluated by NHS England (NHSE) from 2015., AIM: To answer the following question: what is the patient perspective of pharmacists in patient-facing roles in general practice in the UK?, DESIGN & SETTING: Focus group interviews exploring patient perspectives on the pharmacist role in the UK., METHOD: Thirty-four patients were interviewed in five focus group (January-December 2016). Data were iteratively analysed using the one sheet of paper technique., RESULTS: While the public were aware of the primary care crisis, they were less well informed about potential solutions. Data showed patients primarily sought access to a clinician over expressing a preference for any type of clinician. Low awareness was shown about the pharmacist role and there was initial confusion about it.

Acceptability levels were high. It was found that pharmacists added value and provided an expert medication-focused service, which had a positive impact on medicines use. Patients reported benefit from longer appointments, feeling they were not rushed, and that all their conditions were being considered holistically. They trusted pharmacists as experts in medication and trust was consolidated over time. Regular coaching from a pharmacist could lead to improved patient self-monitoring and self-care., CONCLUSION: Pharmacists can add value to the general practice team and this is recognised by patients. Copyright © 2022, The Authors.

Integration of a clinical pharmacist workforce into newly forming primary care networks: a qualitatively driven, complex systems analysis

Item Type: Generic

Author: Mills, Thomas, Madden, Mary, Stewart, Duncan, Gough, Brendan and McCambridge, Jim

Publication Date: 2022

Publication Details: BMJ open, 12, (11) pp.e066025. , England:

Abstract: OBJECTIVE: The introduction of a new clinical pharmacist workforce via Primary Care Networks (PCNs) is a recent national policy development in the National Health Service in England. This study elicits the perspectives of people with responsibility for local implementation of this national policy package. Attention to local delivery is necessary to understand the contextual factors shaping the integration of the new clinical pharmacy workforce, and thus can be expected to influence future role development., DESIGN: A qualitative, interview study SETTING AND PARTICIPANTS: PCN Clinical Directors and senior pharmacists across 17 PCNs in England (n=28) ANALYSIS: Interviews were transcribed, coded and organised using the framework method. Thematic analysis and complex systems modelling were then undertaken iteratively to develop the themes., RESULTS: Findings were organised into two

overarching themes: (1) local organisational innovations of a national policy under conditions of uncertainty; and (2) local multiprofessional decision-making on clinical pharmacy workforce integration and initial task assignment. Although a phased implementation of the PCN package was planned, the findings suggest that processes of PCN formation and clinical pharmacist workforce integration were closely intertwined, with underpinning decisions taking place under conditions of considerable uncertainty and workforce pressures., CONCLUSIONS: National policy decisions that required General Practitioners to form PCNs at the same time as they integrated a new workforce risked undermining the potential of both PCNs and the new workforce. PCNs require time and support to fully form and integrate clinical pharmacists if successful role development is to occur. Efforts to incentivise delivery of PCN pharmacy services in future must be responsive to local capacity. Copyright © Author(s) (or their employer(s)) 2022. Re-use permitted under CC BY. Published by BMJ.

[Inequalities in the distribution of the general practice workforce in England: a practice-level longitudinal analysis](#)

Item Type: Generic

Author: Nussbaum, Claire, Massou, Efthalia, Fisher, Rebecca, Morciano, Marcello, Harmer, Rachel and Ford, John

Publication Date: 2021

Publication Details: BJGP open, 5, (5) , England:

Abstract: BACKGROUND: In England, demand for primary care services is increasing and GP shortages are widespread. Recently introduced primary care networks (PCNs) aim to expand the use of additional practice-based roles such as physician associates (PAs), pharmacists, paramedics, and others through financial incentives for recruitment of these roles. Inequalities in general practice, including additional roles, have not been examined in recent years, which is a meaningful gap in the literature. Previous research has found that workforce

inequalities are associated with health outcome inequalities., AIM: To examine recent trends in general practice workforce inequalities., DESIGN & SETTING: A longitudinal study using quarterly General Practice Workforce datasets from 2015-2020 in England., METHOD: The slope indices of inequality (SII) for GPs, nurses, total direct patient care (DPC) staff, PAs, pharmacists, and paramedics per 10 000 patients were calculated quarterly, and plotted over time, with and without adjustment for patient need., RESULTS: Fewer GPs, total DPC staff, and paramedics per 10 000 patients were employed in more deprived areas. Conversely, more PAs and pharmacists per 10 000 patients were employed in more deprived areas. With the exception of total DPC staff, these observed inequalities widened over time. The unadjusted analysis showed more nurses per 10 000 patients employed in more deprived areas. These values were not significant after adjustment but approached a more equal or pro-poor distribution over time., CONCLUSION: Significant workforce inequalities exist and are even increasing for several key general practice roles, with workforce shortages disproportionately affecting more deprived areas. Policy solutions are urgently needed to ensure an equitably distributed workforce and reduce health inequities. Copyright © 2021, The Authors.

[Community pharmacy teams' experiences of general practice-based pharmacists: An exploratory qualitative study](#)

Item Type: Generic

Author: Karampatakis, G. D., Patel, N., Stretch, G. and Ryan, K.

Publication Date: 2020

Publication Details: BMC Health Services Research, 20, (1) pp.431. , United Kingdom: BioMed Central Ltd. (E-mail: info@biomedcentral.com).

Abstract: Background: In England, since 2015, there has been a formal drive to integrate pharmacists into general practice as a new healthcare service. Research efforts have offered insights

into how general practice-based professionals and patients view the service, however, they took no account of community pharmacy teams' opinions. There have been anecdotal statements about opposition from community pharmacies to the service, due to fears of losing business. The aim of the current study was to identify the experiences and perceptions of community pharmacy teams regarding pharmacists' presence in general practice. Method(s): The National Health Service Choices website was used to identify community pharmacies within a radius of two miles from eight West London general practices. The search resulted in 104 community pharmacies which were all contacted via telephone. Pharmacy staff who verbally expressed their interest to participate were then provided with the study's documents. Qualitative, face-to-face, semi-structured interviews were conducted inside the pharmacy from which each participant was recruited. Interviews lasted 30 to 45 min and were audio-recorded. Audio-recordings were transcribed verbatim and transcripts analysed thematically. Result(s): Forty-eight community pharmacy staff participated. Four themes were discerned: awareness ("I knew that pharmacists] have already been implemented in general practice] but I haven't really followed it where does the pharmacist role come?"); interactions ("I'm just so pleased that there's a pharmacist professional in the general practice because we speak the same language!"); patient care ("if I was a patient knowing that there is a general practitioner and a pharmacist in general practice], I would think 'nothing can go wrong at the moment'"); and funding challenges ("if general practices take on the extra responsibility of stop smoking or flu vaccination campaigns financially, this would affect this pharmacy"). Conclusion(s): The current study revealed the perceived impact of general practice-based pharmacists on community pharmacies would be improved communication between pharmacies and practices. Findings will inform policy so that any future framing of pharmacists' presence in general practice

considers the needs of community pharmacies. Copyright © 2020 The Author(s).

[A cross-sectional survey of the pharmacy workforce in general practice in Scotland](#)

Item Type: Generic

Author: Stewart, D., Maclure, K., Newham, R., Gibson-Smith, K., Bruce, R., Cunningham, S., Maclure, A., Fry, S., Mackerrow, J. and Bennie, M.

Publication Date: 2020

Publication Details: Family practice, 37, (2) pp.206-212. , United Kingdom: NLM (Medline).

Abstract: BACKGROUND: In Scotland, there has been significant investment in pharmacy teams in general medical practices over recent years, aligned to current government policy. OBJECTIVE(S): To characterize the national pharmacy workforce including activities undertaken, perceived competence and confidence, as well as perception of integration of the intervention. METHOD(S): A cross-sectional survey of all pharmacists and pharmacy technicians in general practices. Survey items were demographics, activities undertaken and experiences. The NoMAD tool (Improving the Normalization of Complex Interventions) was included as a measure of perspectives of implementation. Post-piloting, a questionnaire link was sent to all pharmacists (n = 471) and pharmacy technicians (n = 112). A total NoMAD score was obtained by assigning 1 (strongly disagree) to 5 (strongly agree) to each item. RESULT(S): Responses were received from 393 (83.4%) pharmacists and 101 (91.8%) pharmacy technicians. Three quarters of pharmacists (74.6%) and pharmacy technicians (73.3%) had been qualified for over 10 years. Two-thirds of pharmacists (68.4%) were independent prescribers, with three quarters (72.3%) currently prescribing. Respondents worked in a median of two practices and were providing a range of activities including medication/polypharmacy reviews, medicines

reconciliation, prescribing efficiencies and training. Respondents reported high levels of competence and confidence (median 8, scale 0-10 highest). Median NoMAD total score (scale 20-100 highest, Cronbach's alpha 0.89) was 80 for pharmacists and 75 for pharmacy technicians, $P \leq 0.001$. CONCLUSION(S): The general practice pharmacy workforce in Scotland is experienced, well-qualified and integrated within general practices, delivering a range of activities. These findings have implications for workforce planning and future education and training. Copyright © The Author(s) 2019. Published by Oxford University Press. All rights reserved. For permissions, please e-mail: journals.permissions@oup.com.

Role definition if key – rapid qualitative ethnography findings from a team-based primary care transformation

Author(s): Brown-Johnson et al.

Source: Learning Health Systems 3

Publication date: 2019

Purpose: Implementing team-based care into existing primary care is challenging; understanding facilitators and barriers to implementation is critical. We assessed adoption and acceptability of new roles in the first 6 months of launching a team-based care model focused on preventive care, population health, and psychosocial support. Methods: We conducted qualitative rapid ethnography at a community-based test clinic, including 74 hours of observations and 28 semi-structured interviews. We identified implementation themes related to team-based care and specifically the integration of three roles purposively designed to enhance coordination for better patient outcomes, including preventive screening and mental health: (1) medical assistants as care coordinators; (2) extended care team specialists, including clinical pharmacist and behavioral health professional; and (3) advanced practice providers (APPs)—ie, nurse practitioners and physician assistants. Results: All stakeholders (ie, patients, providers, and staff) reported positive

perceptions of care coordinators and extended care specialists; these roles were well defined and quickly implemented. Care coordinators effectively managed care between visits and established strong patient relationships. Specialist colocation facilitated patient access and well-supported diabetes services and mental health care. We also observed unanticipated value: Care coordinators relayed encounter-relevant chart information to providers while scribing; extended care specialists supported informal continuing medical education. In contrast, we observed uncertain definition and expectations of the APP role across stakeholders; accordingly, adoption and acceptability of the role varied. Conclusions: Practice redesign can redistribute responsibility and patient connection throughout a team but should emphasize well-defined roles. Ethnography, conducted early in implementation with multistakeholder perspectives, can provide rapid and actionable insights about where roles may need refinement or redefinition to support ultimate physical and mental health outcomes for patients.

What can pharmacists do in general practice? A pilot

Author(s): Deeks et al.

Source: Australian Journal of General Practice 47(8)

Publication date: August 2018

Background and objectives: Non-dispensing pharmacists are being suggested as a useful addition to the workforce in general practice. The aim of this study was to describe the activities of three general practice pharmacists over six months in a pilot trial. Method: Three general practices integrated a part-time (15.2-16 hours per week) non-dispensing pharmacist to be employed according to their individual skillset and local workplace needs. Each general practice pharmacist maintained a daily activity diary, which was subsequently analysed. Results: The general practice pharmacists' activities were categorised as quality of practice (37%), administration (34%), medication review (19%) and patient education (11%). Within the quality of practice

category, most time was spent conducting clinical audits (47%). Over the course of the six months, time spent on administration decreased, while time communicating with general practitioners (GPs) on clinical issues increased. Discussion: The general practice pharmacists conducted a range of predominantly clinically related activities involving their expertise in the quality use of medications. Involvement in clinical activities to support GPs increased with time working in the practice. Randomised controlled trials are required to collect clinical outcomes and determine which activities conducted by pharmacists are most beneficial to Australian patients and GPs.

Evolution of the general practice pharmacist's role in England: a longitudinal study

Author(s): Bradley et al.

Source: British Journal of General Practice

Background: To address the growing GP workforce crisis, NHS England (NHSE) launched the Clinical Pharmacists in General Practice scheme in 2015. The NHSE scheme promotes a newer, patient-facing role for pharmacists and, currently, there is little insight into the role and activities undertaken. All scheme pharmacists are enrolled on the general practice pharmacist training pathway (GPPTP). Aim: To investigate the role evolution and integration of clinical pharmacists in general practice in England. Design and Setting: Longitudinal survey of all phase 1 GPPTP registrants working in general practice at start of (T1) and 6 months into (T2) training. Method: An online longitudinal survey was administered to all phase 1 GPPTP registrants (n = 457) at T1 and T2, measuring their perceived knowledge, skill, and confidence, activities performed, and perceptions of practice integration, environment, and support. Descriptive statistics and non-parametric tests were conducted. Results: Response rates were 46% (T1) and 52% (T2); 158 participants completed both questionnaires. Perceived knowledge, skill, and confidence levels increased significantly from T1 to T2 for all areas, except

for managing acute or common illness. Scope of practice increased significantly, particularly in patient-facing activities. Sharing office space with administrative staff was common and 13% of participants reported having no designated work area. Perceived integration at T2 was fairly high (median = 5 on a scale of 1-7) but GP clinical support was 'too little' according to one-third of participants. Conclusion: Findings show not only patient-facing role expansion, but also practice environment and support issues. Pharmacists may appreciate more GP time invested in their development. Practices need to be realistic about this support and not expect an immediate reduction in workload.

"Pharming out" support: a promising approach to integrating clinical pharmacists into established primary care medical home practices

Author(s): Bruinsholz et al.

Source: Journal of International Medical Research

Publication date: August 2017

Objective: Embedding clinical pharmacists into ambulatory care settings needs to be assessed in the context of established medical home models. Methods: A retrospective, observational study examined the effectiveness of the Intermountain Healthcare Collaborative Pharmacist Support Services (CPSS) program from 2012–2015 among adult patients diagnosed with diabetes mellitus (DM) and/or high blood pressure (HBP). Patients who attended this program were considered the intervention (CPSS) cohort. These patients were matched using propensity scores with a reference group (no-CPSS cohort) to determine the effect of achieving disease management goals and time to achievement. Results: A total of 17,684 patients had an in-person office visit with their provider and 359 received CPSS (the matched no-CPSS cohort included 999 patients). CPSS patients were 93% more likely to achieve a blood pressure goal < 140/90 mmHg, 57% more likely to achieve

HbA1c values < 8%, and 87% more likely to achieve both disease management goals compared with the reference group. Time to goal achievement demonstrated increasing separation between the study cohorts across the entire study period ($P < .001$), and specifically, at 180 days post-intervention (HBP: 48% vs 27% $P < .001$ and DM: 39% vs 30%, $P < .05$). Conclusions: CPSS participation is associated with significant improvement in achievement of disease management goals, time to achievement, and increased ambulatory encounters compared with the matched no-CPSS cohort.

Recruitment and retention

Self-Reported Factors Involved in Attrition and Retention of Pharmacy Faculty Abstract only*

Item Type: Journal Article

Authors: Chu, Angela;Unni, Elizabeth J.;Murphy, Karrie and Mantione, Maria M.

Publication Date: 2024

Journal: American Journal of Pharmaceutical Education 88(8), pp. 100739

Abstract: OBJECTIVE: To evaluate factors associated with pharmacy faculty attrition and retention., METHODS: A cross-sectional survey was developed that consisted of 33 closed- and open-ended items related to reasons or potential reasons for leaving academia, motivating factors for staying in academia, and personal and professional demographic characteristics. The survey was distributed via Qualtrics to all current pharmacy faculty using the American Association of Colleges of Pharmacy email listserv and posted in American Society of Health-System Pharmacists and American Association of Colleges of Pharmacy online communities to recruit participants who were no longer in academia. Descriptive statistics were used to analyze the data using SPSS., RESULTS: A total of 1011 current and 79 former pharmacy faculty completed the survey, with the majority being

female, white, full-time, nontenure track, pharmacy practice, and at associate rank. Of the current faculty, 21.5% intend to leave their current position within the next year and 37.4% of respondents think about leaving either daily or weekly. Faculty who are no longer in academia or potentially will leave their position cited an unmanageable workload as the most impactful reason, with other risk factors, including unsupportive/inadequate direct supervisors or senior leadership and inadequate work-life balance, compensation, and resources. The top reasons for staying in academia included having an adequate work-life balance, manageable workload, and meaningful relationships with students., CONCLUSIONS: The Academy and individual institutions must evaluate and address risk factors contributing to faculty attrition. Simultaneously, they should actively encourage conditions such as maintaining a manageable workload and promoting work-life balance to retain faculty members. Copyright © 2024 American Association of Colleges of Pharmacy. Published by Elsevier Inc. All rights reserved.

Rural and Remote

The Pharmacy Community Apgar Questionnaire: a modified Delphi technique to develop a rural pharmacist recruitment and retention tool

Item Type: Generic

Author: Terry, D. R., Peck, B., Hills, D., Bishop, J., Kirschbaum, M., Obamiro, K. O., Phan, H., Baker, E. and Schmitz, D.

Publication Date: 2022

Publication Details: Rural and remote health, 22, (4) pp.7347. , Australia: NLM (Medline).

Abstract: INTRODUCTION: An adequate healthcare workforce remains essential for the health of rural communities. Strategies to address rural health workforce challenges have often centred on the medical and nursing workforce; however, addressing the rural pharmacist workforce also remains critical as they are often

the first point of contact for health advice. Initiatives have increased pharmacist supply; however, key issues such as poor attraction, recruitment, and retention to rural areas remain. The aim of this study was to support the recruitment and retention of pharmacists in rural areas of Australia through the development of the Pharmacy Community Apgar Questionnaire (PharmCAQ). **METHOD(S):** A modified Delphi technique was employed to develop the PharmCAQ. A panel of experts were purposively selected. Eight representatives were from organisations with rural experience relevant to the study including the Society of Hospital Pharmacists of Australia, the Pharmaceutical Society of Australia, the Pharmacy Guild of Australia, the Pharmacy Board of Australia, and a representative of a government health agency, who also leads a hospital pharmacy. Three additional participants included local and international academics with health policy and rural health workforce expertise. All participants participated in three separate focus groups of 45-60 minutes duration, where the review and refinement of factors that drive recruitment and retention of pharmacist were discussed. Face and content validity was achieved through the representatives, while internal consistency was achieved when the tool was piloted among 10 rural pharmacists in rural Victoria. **RESULT(S):** Fifty key factors that impact the recruitment and retention of pharmacists were identified, developed and succinctly described. All factors were grouped into five classifications: (1) geographic, (2) economic and resources, (3) practice and scope of practice, (4) practice environment and (5) community practice support. After final consensus, the factors and their definitions formed the final questionnaire. Lastly, the reliability of PharmCAQ was determined, with a Cronbach's alpha coefficient of 0.852. **CONCLUSION(S):** While the development and use of the Apgar questionnaire for the recruitment and retention of health professionals is not a novel idea, seeking to specifically focus on pharmacists is unique. However, 10 factors were similar to factors associated with rural recruitment and retention of both

physicians and nurses; they encompassed geographic, community support, and economic and resource factors. Regardless of similarities or differences between health professions in terms of recruitment and retention, as a mechanism for addressing the worsening health professional shortage currently experienced in rural areas, the PharmCAQ was developed to support the recruitment and retention of the pharmacist workforce in rural areas.

[Sustaining rural pharmacy workforce understanding key attributes for enhanced retention and recruitment](#) Abstract only*

Item Type: Generic

Author: Terry, Daniel, Peck, Blake, Hills, Danny, Bishop, Jaclyn, Kirschbaum, Mark, Obamiro, Kehinde, Phan, Hoang, Baker, Ed and Schmitz, David

Publication Date: 2022

Publication Details: The Australian Journal of Rural Health, , Australia:

Abstract: **OBJECTIVE:** To pilot the Pharmacist Community Apgar Questionnaire (PharmCAQ) and evaluate its usability and capacity to develop a greater understanding of the unique factors that impact the rural recruitment and retention of pharmacists., **DESIGN:** Cross-sectional design involving face-to-face, telephone or video conferencing interviews., **SETTING:** Twelve rural communities across Tasmania and Western Victoria, Australia., **PARTICIPANTS:** Participants (n = 24) included pharmacists, a Director of Clinical Services, pharmacy practice managers and senior pharmacy assistants., **MAIN OUTCOME MEASURES:** Interviews enabled the completion of the PharmCAQ, which assigns quantitative values to 50 key factors to ascertain a community's strengths and challenges associated with recruitment and retention and their relative importance to the pharmacist workforce., **RESULTS:** The cumulative PharmCAQ scores indicated the tool was sensitive enough to differentiate high- and low-performing communities. Overall, the

highest-rated factors considered most vital to pharmacist recruitment and retention were the reputation of the pharmacy, the ability of the pharmacist to be independent and autonomous, the loyalty of the community to the pharmacy, the level and stability of monetary compensation and the breadth of tasks available to a pharmacist., CONCLUSIONS: This study identified the strengths and challenges of participating communities and provided an insight into the shared factors to consider in recruiting and retaining pharmacists. Further, each community has unique strengths that can further be promoted in recruitment, flagging where limited resources are best used to address site specific challenges. This is more likely to ensure the matching of the right candidate with the right community. Copyright © 2022 The Authors. Australian Journal of Rural Health published by John Wiley & Sons Australia, Ltd on behalf of National Rural Health Alliance Ltd.

Factors contributing to the recruitment and retention of rural pharmacist workforce: a systematic review

Item Type: Generic

Author: Terry, D., Phan, H., Peck, B., Hills, D., Kirschbaum, M., Bishop, J., Obamiro, K., Hoang, H., Nguyen, H., Baker, E. and Schmitz, D.

Publication Date: 2021

Publication Details: BMC health services research, 21, (1) pp.1052. , United Kingdom: NLM (Medline).

Abstract: BACKGROUND: Recruiting and retaining medical, nursing, and allied health professionals in rural and remote areas is a worldwide challenge, compromising continuity of care and population health outcomes in these locations. Specifically, pharmacists play an essential and accessible frontline healthcare role, and are often the first point of contact for health concerns. Despite several incentives, there remains a maldistribution and undersupply of pharmacists in rural and remote areas across many parts of the world. Although current systematic reviews

have focussed on factors affecting pharmacists' retention generally, literature specifically focused on rural pharmacist workforce in a global context remains limited. The aim of this systematic review is to identify factors associated with recruitment and retention of the pharmacist workforce in rural and remote settings. Better understanding of these contributors will inform more effective interventional strategies to resolve pharmacist workforce shortages. METHOD(S): A systematic search of primary studies was conducted in online databases, including Medline, Embase, CINAHL, Scopus, Web of Science and PsycINFO, and by hand-searching of reference lists. Eligible studies were identified based on predefined inclusion/exclusion criteria and methodological quality criteria, utilising the Critical Appraisal Skills Programme (CASP) and Good Reporting of A Mixed Methods Study (GRAMMS) checklists. RESULT(S): The final review included 13 studies, with quantitative, qualitative, or mixed methods research design. Study-specific factors associated with recruitment and retention of pharmacists in rural practice were identified and grouped into five main themes: geographic and family-related, economic and resources, scope of practice or skills development, the practice environment, and community and practice support factors. CONCLUSION(S): The results provide critical insights into the complexities of rural recruitment and retention of pharmacists and confirms the need for flexible yet multifaceted responses to overcoming rural pharmacist workforce challenges. Overall, the results provide an opportunity for rural communities and health services to better identify key strengths and challenges unique to the rural and remote pharmacist workforce that may be augmented to guide more focussed recruitment and retention endeavours. Copyright © 2021. The Author(s).

Strategies to increase the pharmacist workforce in rural and remote Australia: a scoping review

Item Type: Generic

Author: Obamiro, K. O., Tesfaye, W. H. and Barnett, T.

Publication Date: 2020

Publication Details: Rural and remote health, 20, (4) pp.5741. , Australia: NLM (Medline).

Abstract: INTRODUCTION: Despite reports suggesting an oversupply of pharmacists, there is currently an inadequate supply in rural and remote Australia. This can lead to a reduction in pharmaceutical services for an already vulnerable population. The objective of this study was to identify strategies for increasing the pharmacist workforce and factors associated with retention in rural and remote Australia Methods: Database searches of Ovid Medline (Medline and Embase), CINAHL and Scopus were conducted. Full text of relevant studies conducted in Australia, reported in English and published between 2000 and 2019 were retrieved. The record titles were independently screened by two investigators, after which abstracts of disputed articles were collected for further evaluation. Where agreement could not be reached, a third independent investigator screened the residual articles for inclusion or exclusion. RESULT(S): Overall, 13 articles focusing on the pharmacy profession were retrieved. Strategies that have been employed to increase the rural and remote pharmacist workforce include the establishment of pharmacy schools in rural areas, inclusion of rural content in undergraduate pharmacy curriculum, enrolment of students from rural backgrounds, rural placement and employment of sessional pharmacists. Factors associated with retention were personal, workplace or community factors. CONCLUSION(S): There is limited research focusing on the recruitment and retention of pharmacists in rural and remote Australia. Given that pharmacies in rural and remote areas are very accessible and often function as one-stop health hubs, additional personal, workplace and community support should be provided for rural pharmacists and

pharmacy students undergoing placements in rural and remote communities.

Scope of Practice

Assessing Hospital Pharmacists' Scope of Clinical Practice in Ontario

Item Type: Journal Article

Authors: Tessier, Sarah; Tsang, Victor and Martin, Spencer

Publication Date: 2024

Journal: The Canadian Journal of Hospital Pharmacy 77(2), pp. e3491

Abstract: Background: Expansion of the scope of pharmacists' activities in hospital is associated with reductions in adverse events and drug-related readmissions. However, the breadth of hospital pharmacists' clinical activities varies widely across Ontario due to provisions in the provincial Public Hospitals Act. Few data exist defining expanded scope in institutions across Ontario., Objectives: The primary objective was to describe the scope of practice of hospital pharmacists in Ontario who were undertaking expanded clinical activities based on policies or medical directives. The secondary objectives included determining benefits, limitations, facilitators, and barriers associated with implementing these activities., Methods: A survey was sent to the pharmacy leadership of Groups A and B public hospitals across Ontario. The survey contained quantitative and qualitative questions focused on 3 domains of expanded-scope activities: adaptation, discontinuation, and renewal of medication orders; prescriptive authority; and drug monitoring., Results: Of 56 hospitals invited, 46 (82%) submitted a survey response, with 1 exclusion (due to no response on some mandatory questions). The most common expanded-scope activity was independent performance of therapeutic drug monitoring (71%, 32/45). Pharmacists had the authority to independently adapt, discontinue, or renew inpatient medication

orders in 60% (27/45) of hospitals, and could independently initiate medication orders in 20% (9/45). Barriers to implementing expanded-scope activities included limited time and staffing. Facilitators included proactive leadership, demonstrated clinical value, and strong rapport with other health care providers., Conclusions: Many institutions in Ontario have established policies to expand pharmacists' clinical activities, but there is a great deal of variability in scope of practice. Advocacy at the provincial level to unify scope of practice will help to optimize patient outcomes. Copyright 2024 Canadian Society of Hospital Pharmacists. All content in the Canadian Journal of Hospital Pharmacy is copyrighted by the Canadian Society of Hospital Pharmacy. In submitting their manuscripts, the authors transfer, assign, and otherwise convey all copyright ownership to CSHP.

Skill mix

[Skill-mix change in general practice: a qualitative comparison of three 'new' non-medical roles in English primary care](#)

Author(s): Nelson et al.

Source: British Journal of General Practice

Publication date: July 2019

BACKGROUND General practice is currently facing a significant workforce challenge. Changing the general practice skill mix by introducing new non-medical roles is recommended as one solution; the literature highlights that organisational and/or operational difficulties are associated with skill-mix changes. **AIM** To compare how three non-medical roles were being established in general practice, understand common implementation barriers, and identify measurable impacts or unintended consequences. **DESIGN AND SETTING** In-depth qualitative comparison of three role initiatives in general practices in one area of Greater Manchester, England; that is, advanced practitioner and physician associate training schemes, and a locally commissioned practice pharmacist service. **METHOD**

Semi-structured interviews and focus groups with a purposive sample of stakeholders involved in the implementation of each role initiative were conducted. Template analysis enabled the production of pre-determined and researcher-generated codes, categories, and themes. **RESULTS** The final sample contained 38 stakeholders comprising training/service leads, role holders, and host practice staff. Three key themes captured participants' perspectives: purpose and place of new roles in general practice, involving unclear role definition and tension at professional boundaries; transition of new roles into general practice, involving risk management, closing training-practice gaps and managing expectations; and future of new roles in general practice, involving demonstrating impact and questions about sustainability. **CONCLUSION** This in-depth, in-context comparative study highlights that introducing new roles to general practice is not a simple process. Recognition of factors affecting the assimilation of roles may help to better align them with the goals of general practice and harness the commitment of individual practices to enable role sustainability.

Staff experiences and perceptions

[Pharmacists' perceptions of their emerging general practice roles in UK primary care: a qualitative interview study](#)

Author(s): Butterworth et al.

Source: British Journal of General Practice

Publication date: September 2017

Background: UK general practice is experiencing a workload crisis. Pharmacists are the third largest healthcare profession in the UK; however, their skills are a currently underutilised and potentially highly valuable resource for primary health care. This study forms part of the evaluation of an innovative training programme for pharmacists who are interested in extended roles in primary care, advocated by a UK collaborative '10-point GP workforce action plan'. **Aim:** To explore pharmacists' perceptions

of primary care roles including the potential for greater integration of their profession into general practice. Design and Setting: A qualitative interview study in UK primary care carried out between October 2015 and July 2016. Method: Pharmacists were purposively sampled by level of experience, geographical location, and type of workplace. Two confidential semi-structured telephone interviews were conducted - one before and one after the training programme. A constant comparative, inductive approach to thematic analysis was used. Results: Sixteen participants were interviewed. The themes related to: initial expectations of the general practice role, varying by participants' experience of primary care; the influence of the training course with respect to managing uncertainty, critical appraisal skills, and confidence for the role; and predictions for the future of this role. Conclusion: There is enthusiasm and willingness among pharmacists for new, extended roles in primary care, which could effectively relieve GP workload pressures. A definition of the role, with examples of the knowledge, skills, and attributes required, should be made available to pharmacists, primary care teams, and the public. Training should include clinical skills teaching, set in context through exposure to general practice, and delivered motivationally by primary care practitioners.

[Delegation: a solution to the workload problem? Observations and interviews with community pharmacists in England](#) Abstract only*

Author(s): Lea et al.

Source: International Journal of Pharmacy Practice 24(3)

Publication date: May 2016

Objective: This study aims to describe how pharmacists utilise and perceive delegation in the community setting. Method: Non-participant observations and semi-structured interviews with a convenience sample of community pharmacists working in Kent between July and October 2011. Content analysis was undertaken to determine key themes and the point of theme

saturation informed sample size. Findings from observations were also compared against those from interviews. Key findings: Observations and interviews were undertaken with 11 pharmacists. Observations showed that delegation occurred in four different forms: assumed, active, partial and reverse. It was also employed to varying extents within the different pharmacies. Interviews revealed mixed views on delegation. Some pharmacists presented positive attitudes towards delegation while others were concerned about maintaining accountability for delegated tasks, particularly in terms of accuracy checking of dispensed medication. Other pharmacists noted the ability to delegate was not a skill they found inherently easy. Comparison of observation and interview data highlighted discrepancies between tasks pharmacists perceived they delegated and what they actually delegated. Conclusions: Effective delegation can potentially promote better management of workload to provide pharmacists with additional time to spend on cognitive pharmaceutical services. To do this, pharmacists' reluctance to delegate must be addressed. Lack of insight into own practice might be helped by self-reflection and feedback from staff. Also, a greater understanding of legal accountability in the context of delegation needs to be achieved. Finally, delegation is not just dependent on pharmacists, but also on support staff; ensuring staff are empowered and equipped to take on delegated roles is essential.

Support Workforce

Implementing the pharmacy technician role in existing pharmacy settings: Stakeholders views of barriers and facilitators

Item Type: Generic

Author: Koehler, Tamara, Velthuis, Floor, Helmich, Esther, Westerman, Michiel and Jaarsma, Debbie

Publication Date: 2022

Publication Details: Research in social & administrative pharmacy : RSAP, 18, (10) pp.3814-3820. , United States:

Abstract: BACKGROUND: The field of pharmacy will benefit from pharmacy technicians, a higher educated mid-level support workforce. They support pharmacists in providing pharmaceutical patient care through delegated roles and responsibilities. Empirical research on pharmacy technicians within pharmacy practice community and hospital pharmacy practices tends to focus on the practical outcomes of this workforce addition. It mostly addresses the 'WHAT' of service delivered by pharmacy technicians. Literature on the 'HOW' of their role development in practice is scarce. Furthermore, it seems difficult for most pharmacy technicians to effectively fulfil this professional role., OBJECTIVE: This qualitative study explored factors influencing role development of pharmacy technicians in community and hospital pharmacies., METHODS: On site, individual and small-group interviews were conducted with pharmacy technicians (n = 10), and two colleagues: pharmacists (n = 7) and pharmacy assistants (n = 6). Interviews were based on a semi-structured interview guide. Participants were asked to describe specific incidents and organisational, relational and pharmaceutical care perspectives, illustrative of the process of developing and implementing the pharmacy technician role. Template analysis was used to develop a list of codes representing themes identified in the data., RESULTS: Five interrelated themes influenced development and implementation of the pharmacy technician role. Two of them

were at a more contextual level: (a) experiencing a lack of vision on added value of the new role within the field of pharmacy and (b) learning climate. The other three were related to personal interactions between staff members: (c) role expectations and organisational fit, (d) personal traits of pharmacy technicians and (e) support of pharmacy technicians through task delegation and role enhancement., CONCLUSIONS: The data showed that development and implementation of pharmacy technician roles is a complicated process. A detailed plan for addressing and remediating the five identified themes is important to promote role development of pharmacy technicians. Copyright © 2022 The Authors. Published by Elsevier Inc. All rights reserved.

Documenting the evolution of the relationship between the pharmacy support workforce and pharmacists to support patient care

Source: Research in Social and Administrative Pharmacy 13(2) pp. 280-285

Publication date: 2017

Since 2009 there has been a focus on the relationship between pharmacy technicians, pharmacy support workforce cadres and pharmacists in the literature. 2009–2011 saw a framework of role evolution develop, with publications from 2012 to 2015 documenting further maturity in the development of practice models for improved patient care and optimal use of personnel. The dominant narrative in the published academic literature has been made by certain high- income countries (mainly Canada, Denmark, United Kingdom and the United States of America). In these countries there are significant numbers of pharmacists available and there has been an increasing interest to utilize pharmacy support workforce cadres to allow the extension of clinical roles of pharmacists in these contexts. This is not a systematic presentation of all the literature available but rather a commentary overview supported by key papers.

Technology

[An Artificial Intelligence-Supported Medicinal Chemistry Project: An Example for Incorporating Artificial Intelligence Within the Pharmacy Curriculum](#) Abstract only*

Item Type: Journal Article

Authors: Culp, M. L.;Mahmoud, S.;Liu, D. and Haworth, I. S.

Publication Date: 2024

Journal: American Journal of Pharmaceutical Education 88(5), pp. 100696

Abstract: Objective: This study aims to integrate and use AI to teach core concepts in a medicinal chemistry course and to increase the familiarity of pharmacy students with AI in pharmacy practice and drug development. Artificial intelligence (AI) is a multidisciplinary science that aims to build software tools that mimic human intelligence. AI is revolutionizing pharmaceutical research and patient care. Hence, it is important to include AI in pharmacy education to prepare a competent workforce of pharmacists with skills in this area. Method(s): AI principles were introduced in a required medicinal chemistry course for first-year pharmacy students. An AI software, KNIME, was used to examine structure-activity relationships for 5 drugs. Students completed a data sheet that required comprehension of molecular structures and drug-protein interactions. These data were then used to make predictions for molecules with novel substituents using AI. The familiarity of students with AI was surveyed before and after this activity. Result(s): There was an increase in the number of students indicating familiarity with use of AI in pharmacy (before vs after: 25.3% vs 74.5%). The introduction of AI stimulated interest in the course content (> 60% of students indicated increased interest in medicinal chemistry) without compromising the learning outcomes. Almost 70% of students agreed that more AI should be taught in the PharmD curriculum. Conclusion(s): This is a successful and transferable example of integrating AI in pharmacy education

without changing the main learning objectives of a course. This approach is likely to stimulate student interest in AI applications in pharmacy. Copyright © 2024 American Association of Colleges of Pharmacy

[Disruptive innovation in community pharmacy – impact of automation on the pharmacist workforce](#) Abstract only*

Author(s): Spinks et al.

Source: Research in Social and Administrative Pharmacy 13(2) pp. 392-397

Publication date: March 2017

Pharmacy workforce planning has been relatively static for many decades. However, like all industries, health care is exposed to potentially disruptive technological changes. Automated dispensing systems have been available to pharmacy for over a decade and have been applied to a range of repetitive technical processes which are at risk of error, including record keeping, item selection, labeling and dose packing. To date, most applications of this technology have been at the local level, such as hospital pharmacies or single-site community pharmacies. However, widespread implementation of a more centralized automated dispensing model, such as the 'hub and spoke' model currently being debated in the United Kingdom, could cause a 'technology shock,' delivering industry-wide efficiencies, improving medication accessibility and lowering costs to consumers and funding agencies. Some of pharmacists' historical roles may be made redundant, and new roles may be created, decoupling pharmacists to a certain extent from the dispensing and supply process. It may also create an additional opportunity for pharmacists to be acknowledged and remunerated for professional services that extend beyond the dispensary. Such a change would have significant implications for the organization and funding of community pharmacy services as well as pharmacy workforce planning. This paper discusses the prospect of centralized automated dispensing

systems and how this may impact on the pharmacy workforce. It concludes that more work needs to be done in the realm of pharmacy workforce planning to ensure that the introduction of any new technology delivers optimal outcomes to consumers, insurers and the pharmacy workforce.

Transitions of care

[Role of clinical pharmacists and pharmacy support personnel in transitions of care](#) Abstract only*

Item Type: Generic

Author: Stranges, P. M., Jackevicius, C. A., Anderson, S. L., Bondi, D. S., Danelich, I., Emmons, R. P., Englin, E. F., Hansen, M. L., Nys, C., Phan, H., Philbrick, A. M., Rager, M., Schumacher, C. and Smithgall, S.

Publication Date: 2020

Publication Details: JACCP Journal of the American College of Clinical Pharmacy, 3, (2) pp.532-545. , United States: Blackwell Publishing Ltd.

Abstract: Patients moving between health care settings or providers are at increased risk of complications, including unplanned hospital readmissions and medication errors. Several actions must occur in concert with members of the health care team and across settings to ensure coordinated and continuous care for patients undergoing these transitions of care (TOC). Clinical pharmacists support patients during care transitions by providing interventions and services designed to improve medication outcomes. Clinical pharmacists and team members who support clinical pharmacist activities (eg, pharmacy students, technicians, and residents) are located throughout the care continuum, from acute care to care in the community, with each contributing to improved TOC outcomes. This article provides information on evidence of high-impact clinical pharmacist TOC practices to serve as a practical guide for practitioners interested in starting or improving TOC activities.

This article also addresses current and emerging best practices and offers suggestions for improving clinical pharmacist involvement in care transition activities. Copyright © 2020 Pharmacotherapy Publications, Inc.

Upskilling

[Can upskilling pharmacy technicians support a robust and cost-effective Inflammatory Bowel Disease patient review process? A single-centre prospective study](#)

Item Type: Generic

Author: Rees, F., Packham, A., St Clair Jones, A. and Smith, M.

Publication Date: 2022

Publication Details: Journal of Crohn's and Colitis, 16, pp.i391-i392. , Netherlands: Oxford University Press.

Abstract: Background: Immunomodulators are key to the management of Inflammatory bowel disease (IBD). To ensure safety and efficacy, UK guidance recommend immunomodulator review. At University Hospitals Sussex (UHS), reviews are completed by a multi-disciplinary team (MDT), with specialised IBD pharmacists and nurses leading on autonomous blood monitoring and symptom review (figure 1). This workload puts considerable strain on the UHS IBD team. Upskilling and task shifting is recognised as legitimate strategy for service enhancement, care access, cost effectiveness and sustainability plus ensures team flexibility, boosted morale and career progression. The UHS IBD team includes a highly motivated pharmacy technician (PT). In the UK, PT are registered non-prescribing healthcare professionals, but training does not include autonomous blood monitoring and symptom review. Method(s): To ensure competency of autonomous blood monitoring and symptom review, a training package was developed and was approved by UHS Medicines Governance Group. Once accredited, PT prospectively recorded blood

monitoring and symptom review activity over, 10-weeks (figure 2 and, 3) and referrals completed (figure 4). Result(s): The training package was completed in, 10 weeks. Over, 10 weeks, PT completed, 699 distinct monitoring activities, with, 57 (8%) needing referral to the specialised pharmacist. The highest proportion of workload was observed in the IBD infusion clinic (314, 45%), followed by thiopurine monitoring (250, 36%) and then 'others' (135, 19%). 'Others' were essential IBD activities including faecal calprotectin levels (FCPL), pre-initiation tests (e.g. thiopurine methyltransferase levels (TPMT), viral screening, t-spots) and medication levels to optimise therapy. All referrals to the specialised pharmacist were appropriate as needed action by a prescribing professional. In addition, PT contributed substantially to data collection for virtual biologic clinic (VBIC) reviews; 32 patients. Feedback has been overwhelmingly positive from all effected stakeholders (PT, IBD pharmacy and nursing team and gastroenterologists). Conclusion(s): Identifying appropriate tasks and upskilling the IBD PT has enabled a more cost-effective and efficient use of IBD workflow, care standardisation, team robustness and staff morale. Approved training and support are required to enable upskilling and continued service safety and we recommend that skills are recognised locally and nationally. (Table Presented).

Workforce

[Despair and hope: Is the retail community pharmacy workforce in danger of becoming a monopsony labor market?](#)

Author(s): Mark Bounthavong

Source: Journal of the American Pharmacists Association 64(3)

Publication date: May-June 2024

Objective: Mergers of big chain retail community pharmacies can affect the competitiveness of the pharmacy workforce to negotiate better wages and work conditions. However, it is unclear whether these types of mergers are generalizable to the

U.S. pharmacy workforce. We should observe this effect when comparing annual wage trends between retail community pharmacy workers and nonretail community pharmacy workers. In the absence of this effect, annual wage trends would be similar. To examine this theory, annual wage trends for community pharmacy workers were compared with hospital pharmacy workers between 2012 and 2022. Design, setting and participants: A serial cross-sectional study was performed to compare the annual wages between retail community pharmacy workers and hospital pharmacy workers between 2012 and 2022 using data from the U.S. Bureau of Labor and Statistics (BLS). Pharmacy workforce was categorized as pharmacists, pharmacy technicians, and pharmacy aides (clerks) and grouped into retail or hospital pharmacy settings based on the North American Industry Classification System. Pharmacy workers' annual wages were based on the U.S. BLS Quarterly Census of Employment and Wages data. Outcome measures: Annual wages. Results: Between 2012 and 2022, statistically significant annual wage reduction was greater among pharmacists in the retail than pharmacists in the hospital setting by $-\$1974$ (95% CI $-\$2921$ to $-\$1026$) per year. However, these trends were not statistically significant among pharmacy technicians and pharmacy aides. Pharmacy technicians in the retail and hospital settings had a 3.4% and 7.0% increase in average annual wages, respectively. Pharmacy aides in the retail and hospital settings had a 16.8% and 21.6% increase in average annual wages, respectively. Conclusion: Although pharmacists' annual wages decreased, it is unclear whether this was caused by the monopsony labor market. These findings suggest that there may be inefficiencies in the retail community pharmacy labor market, which may stimulate policies to improve pharmacy workforce conditions and patient safety.

Hospital pharmacy workforce

Item Type: Journal Article

Authors: Horak, Petr;Makridaki, Despina;Polidori, Piera;Sule, Andras;Bertin, Louis and Kohl, Stephanie

Publication Date: 2024

Journal: European Journal of Hospital Pharmacy : Science and Practice 31(4), pp. 384–386

EAHP Position Paper on the Hospital Pharmacy Workforce

Making a difference for the profession

Healthcare workforce shortages are felt across the globe in all professions. The WHO highlighted for its European region that countries are currently facing severe challenges related to their healthcare workforce that existed before the COVID-19 pandemic and that have been exacerbated by it.¹ In addition to individuals leaving the healthcare professions due to increasing workloads and unmanageable staffing situations, the healthcare workforce is ageing.² A demographic shift of a large section of the workforce into retirement age threatens to impact human resources in all European health professions. Response in the form of adequate workforce planning is urgently needed.

"Trying to develop a better workforce": Stakeholders' perspectives of a practice-integrated Australian hospital pharmacist foundation residency program

Item Type: Generic

Author: Sim, Yu Ting, Murray, Carolyn, Marotti, Sally and Kumar, Saravana

Publication Date: 2022

Publication Details: PloS one, 17, (6) pp.e0270051. , United States:

Abstract: BACKGROUND: Practice-integrated education and professional development programs (also known as residencies), have been available to pharmacists in America and the United Kingdom for many years. In 2016, the Society of Hospital Pharmacists of Australia launched Australia's novel Foundation

Residency Program to support the development of early-career pharmacists, and has been implemented across many hospitals nationally. This model was adopted by the South Australian (SA) public hospital pharmacy statewide service and was granted full accreditation. The study aimed to explore key stakeholders' expectations and early perceptions of the structure, role and impact of the SA program and in that process, to identify key influencing factors and strategies informing future program planning and design., METHODS: Purposeful sampling was adopted to recruit participants who oversee preceptors and residents, across all employment levels and pharmacy service sites. Stakeholders participated in individual semi-structured interviews. Each interview was audio-recorded and transcribed verbatim. The transcribed dataset was managed using NVivo software™ (version 10) and analysed using reflexive thematic analysis through the lens of the PRECEDE-PROCEED logic model framework., RESULTS: Thirty-three staff consented to participate. Participants were de-identified with a randomly assigned code number. Three key themes were identified using reflexive thematic analysis; alignment of program goals and visions, culture shift to prioritising workforce development as core business, program structure supports focused workforce development., CONCLUSIONS: Participants view the residency as beneficial for development of the residents, preceptors, and the hospital pharmacy workforce. The multisite structure was a strength of the program. Whilst it was acknowledged that the rotations, cross-site rotations, and research project presented challenges, they were deemed worth the investment. Overall, it was felt that incremental increases in program capacity will occur over time, as culture changes, and as investing in workforce development becomes core business. The findings have led to several key recommendations to guide program expansion.

[Analysis of the demographics and characteristics of the Australian pharmacist workforce 2013-2018: Decreasing supply points to the need for a workforce strategy](#) Abstract only*

Item Type: Generic

Author: Jackson, J. K., Liang, J. and Page, A. T.

Publication Date: 2021

Publication Details: International Journal of Pharmacy Practice, 29, (2) pp.178-185. , United Kingdom: Oxford University Press.

Abstract: Objectives: An adequate workforce is necessary for health care delivery. The last official analysis of the Australian pharmacist workforce was in 2014 and the results of recent studies are contradictory. The objective of this work was to determine current demographic details and recent trends of the pharmacy workforce and assess the impact of changes in student numbers and migration policy. Method(s): Longitudinal and descriptive analysis was undertaken of National Health Workforce Datasets and registrant data available from the Australian Health Practitioner Regulation Agency and the Pharmacy Board of Australia from 2013 to 2018. Key Findings: There was an increase in females and a trend towards hospital practice but no change in the geographic distribution of pharmacists over the period. However, the pharmacist workforce grew more slowly than comparable health professions and while the youngest pharmacist cohort (20-34 years) remains the largest, the next oldest cohort increased at a greater rate. The youngest cohort reported a decrease in intention to remain working in pharmacy. Conclusion(s): A fall in student numbers and changes to immigration policy have contributed to a low growth rate and ageing of the pharmacist workforce compared with other professions. Whether these factors along with the intentions of young pharmacists will result in a shortage is dependent on developments in demand for pharmacists and a workforce strategy is required to monitor these developments. Copyright © 2021 The Author(s) 2021. Published by Oxford University Press on behalf of the Royal

Pharmaceutical Society. All rights reserved. For permissions, please e-mail: journals.permissions@oup.com.

[Critical care pharmacy workforce: UK deployment and characteristics in 2015](#) Abstract only*

Author(s): Borthwick et al.

Source: International Journal of Pharmacy Practice 26(4)

Publication date: August 2018

Objective: Clinical pharmacists reduce medication errors and optimize the use of medication in critically ill patients, although actual staffing level and deployment of UK pharmacists is unknown. The primary aim was to investigate the UK deployment of the clinical pharmacy workforce in critical care and compare this with published standards. Methods: An electronic data entry tool was created and distributed for UK critical care pharmacy services to record their critical care workforce deployment data. Key findings: Data were received for 279 critical care units in 171 organizations. Clinical pharmacist input was identified for 98.6% of critical care units. The median weekday pharmacist input to critical care was 0.045 whole time equivalents per Level 3 (ICU) bed with significant interregional variation. Weekend services were sparse. Pharmacists spent 24.5% of time on the multidisciplinary team ward round, 58.5% of time on independent patient review and 17% of time on other critical care professional support activities. There is significant variation in staffing levels when services are stratified by highest level of competence of critical care pharmacist within an organization ($P = 0.03$), with significant differences in time spent on the multi-disciplinary ward round ($P = 0.010$) and on other critical care activities ($P = 0.009$), but not on independent patient review. Conclusions: Investment in pharmacy services is required to improve access to clinical pharmacy expertise at weekends, on MDT ward rounds and for other critical care activities.

Competency Frameworks

Development and validation of a national clinical pharmacy competency framework for hospital pharmacists in Austria: a multi-method study

Author(s): Stoll et al.

Source: international Journal of Clinical Pharmacy

Publication date: August 2024

Background: Despite the publication of a European wide competency framework for hospital pharmacy by the European Association of Hospital Pharmacist (EAHP) in 2017, not all countries have adopted and implemented such a framework.

Aim: This study aimed to develop and validate a bespoke national hospital pharmacy competency framework for Austria that supports the hospital pharmacy workforce development.

Method: A multi-method study was carried out in three phases.

(I) A systematic literature review across 48 websites of healthcare-related associations and six scientific databases was conducted, identifying competency frameworks, guidelines and related documents. (II) Extracted behaviour competencies were reviewed for contextual national appropriateness by three researchers prior to mapping against the “Patient Care and Clinical Pharmacy Skills” domain of European Common Training Framework (CTF). (III) Validation of the resultant draft clinical skills competency framework took place by an expert panel (n = 4; Austrian Association of Hospital Pharmacists (AAHP) board members) discussion. Reporting of findings is aligned with the recommendations for reporting Competency Framework Development in health professions (CONFERRD-HP guidelines) and the PRISMA 2020 checklist. Results: The systematic review (SR) resulted in 28 frameworks, guidelines and related documents and the identification of 379 behaviour competencies, with nineteen mapped to the “Patient Care and Clinical Pharmacy Skills” domain of the CTF (after removal of duplicates). Expert panel discussion resulted in suggested

changes to ensure contextual national appropriateness.

Conclusion: This study resulted in the development and validation of the first clinical national pharmacy competency framework for Austria. Future studies should focus on political and practical structures necessary for its successful implementation.

Homecare services professional standards

Source: Royal Pharmaceutical Society

Publication date: 2024

These updated standards establish a comprehensive framework defining high quality care in Homecare Services. Aimed toward guiding teams in provision and commissioning, they set a benchmark for excellence in clinical and professional practices, ensuring all aspects of Homecare Services align with the highest standards.

The specialized competency framework for industry pharmacists (SCF-IP): validation and pilot assessment

Author(s): Sacre et al.

Source: Journal of Pharmaceutical Policy and Practice 16(96)

Publication date: July 2023

Objectives: This study aimed to validate a specialized competency framework for industry pharmacists and assess correlates related to the competency domains in a pilot sample.

Methods: A team of experts assessed the old framework and improved its content validity after a thorough literature review, using the Delphi technique. Domains and their respective competencies and behaviors were re-defined in the framework. Afterward, a web-based cross-sectional study was carried out between March and October 2022, enrolling a convenient sample of ten industry pharmacists who worked in Lebanese pharmaceutical plants. Participants were contacted through the Syndicate of the Pharmaceutical Industries in Lebanon. Results: The specialized competency framework for Lebanese industry

pharmacists comprised seven domains. Behavioral items had appropriate loading on their respective factors, which could involve one, two or three competencies. Cronbach alpha values for all domains were close to one, showing appropriate reliability. Each domain was correlated with at least another one, except for domains related to pharmaceutical and industrial development and emergency preparedness, which were not correlated with other domains. The lowest confidence was found in the research and development domain, particularly among participants with only a PharmD. Conclusions: This study validated the specialized competency framework for Lebanese industry pharmacists. Some domains, specifically those related to industrial development and emergency preparedness, were found to diverge from others. Therefore, it would be recommended to include additional education in the emergency preparedness, research and development fields and to integrate industry-specific skills, courses, and training programs into academic curricula. Furthermore, specialized postgraduate degrees may be necessary to produce practice-ready pharmacists to operate effectively in this vital setting.

Standards for the education and training of pharmacist independent prescribers

Source: General Pharmaceutical Council

Publication date: Updated October 2022

Pharmacists, as experts in medicines, play a vital role in delivering care and helping people to maintain and improve their health, safety and wellbeing. Patients and the public have a right to expect safe and effective care from pharmacists. We believe it is pharmacists' attitudes and behaviours in their day-to-day work which make the most significant contributions to the quality of care, of which safety is a vital part. These standards set out the knowledge, skills and attributes that a pharmacist independent prescriber in training must demonstrate. We expect them to become proficient prescribers whose skills can be used to work

with and support the wider, complex healthcare systems across Great Britain and Northern Ireland. The standards also set out our requirements for organisations providing their education and training.

Core Advanced Pharmacist Curriculum

Source: Royal Pharmaceutical Society

Publication date: ?August 2022

The drivers for taking this opportunity to rearticulate what we expect of entry-level advanced pharmacists have never been stronger. As the UK, and its healthcare systems, begin to emerge from one of the most challenging healthcare events in recent history, the path to recovery for patients, the profession, the wider pharmacy team and beyond may appear stormy and daunting. We hope that the RPS Core Advanced curriculum, in combination with our other postregistration curricula, provide the professional development infrastructure to help pharmacists rise to this challenge, as part of the wider healthcare team, and realise and demonstrate their full value and potential

A competency framework for all prescribers

Source: Royal Pharmaceutical Society

Publication date: September 2021 (Effective date September 2022)

To support the effective and timely implementation of this framework, organisations, healthcare professional regulators, higher education institutes and individuals will have until September 2022 as a transition period to fully implement the framework in practice. However, higher education institutes and other organisations are encouraged to implement and embed the framework as soon as possible.

Consultant Pharmacist Curriculum

Source: Royal Pharmaceutical Society

Publication date: ?2021

First introduced to the NHS in 2005, consultant pharmacists are leaders in the profession as well as senior clinical experts delivering care and driving change across the healthcare system; they undertake activities that use their extensive expert knowledge and skills to contribute to improving the health of individuals and the wider population. Traditionally, the pathway to becoming a consultant pharmacist was based on an individual's personal motivation and serendipity. To respond to this, the Royal Pharmaceutical Society (RPS) developed the RPS Advanced Pharmacy Framework, a competency-based framework designed to support the development of an advancing pharmacy workforce capable of delivering high-level care.

A competency framework for Designated Prescribing Practitioners

Source: Royal Pharmaceutical Society

Publication date: December 2019

Since the introduction of non-medical prescribing, trainees have undertaken a period of learning in practice (PLP) to consolidate and contextualise the academic learning delivered by the programme provider. The PLP enables the trainee to put theory into practice; to develop and demonstrate competence as a prescriber under the supervision of an experienced prescribing practitioner. Traditionally, medically qualified doctors have carried out this role, as a designated medical practitioner (DMP).

Foundation Pharmacist Framework

Source: Royal Pharmaceutical Society

Publication date: 2019

Download the new [RPS Foundation Framework](#) for guidance on how to reflect on your knowledge, skills and behaviours, and to help you identify development needs.

A more detailed curriculum, encompassing these capabilities, is being developed throughout 2020 to support national Foundation training programmes.

An integrated career and competency framework for pharmacists in diabetes

Source: Diabetes UK

Publication date: May 2018

Diabetes is a new area of speciality for pharmacist practice, however the profession has been involved in some aspects of the care of people with diabetes for many years. New specialist roles are being developed, as well as the skills and knowledge of pharmacists working in new sectors, such as general practitioner (GP) practice pharmacists.

Leadership Development Framework

Source: Royal Pharmaceutical Society

Publication date: January 2015

As a professional body, one of the roles of the RPS is to develop professional standards and Frameworks that are supportive, enabling and challenging. A renewed focus on the development of excellent leadership is being seen consistently across all countries within GB. In England, concerns raised by the Francis Review of the failures of Mid-Staffordshire Foundation Trust¹ and the response to that review, the report of the National Advisory Group on the Safety of Patients in England (commonly known as the Berwick Report²), and the criminalisation amendments to the Health and Social Care Act³, allied to changes in the NHS structure in England, has prompted a push to develop excellent leadership in healthcare. In Scotland, the Healthcare Quality Strategy for the NHS puts leadership at all levels among both clinical and non-clinical staff as one of the key foundations for change⁴. This Framework is designed to support every pre-registration trainee, pharmacist

and pharmaceutical scientist in every pharmacy sector to develop leadership attributes and become a leader.

Advanced Pharmacy Framework (APF)

Source: Royal Pharmaceutical Society

Publication date: 2013

Over the past decade, many frameworks and tools have evolved to support professional development across the profession.

The [RPS Advanced Pharmacy Framework \(APF\)](#) is a framework for identifying and recognising the stage of practice. It is applicable to all sectors and nations, building on what have previously been shown to work. This can form the basis of the professional portfolio.

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