



Opportunities to demonstrate expertise and job satisfaction of community pharmacists in Japan and England

Shigeaki Mishima, Naoko Arakawa, Ian Bates & Felicity Smith

To cite this article: Shigeaki Mishima, Naoko Arakawa, Ian Bates & Felicity Smith (2022): Opportunities to demonstrate expertise and job satisfaction of community pharmacists in Japan and England, International Journal of Healthcare Management, DOI: [10.1080/20479700.2022.2029261](https://doi.org/10.1080/20479700.2022.2029261)

To link to this article: <https://doi.org/10.1080/20479700.2022.2029261>



© 2021 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group



Published online: 22 Jan 2022.



Submit your article to this journal [↗](#)



View related articles [↗](#)



View Crossmark data [↗](#)

Opportunities to demonstrate expertise and job satisfaction of community pharmacists in Japan and England

Shigeaki Mishima^{a,b}, Naoko Arakawa^{a,c}, Ian Bates^a and Felicity Smith^a

^aSchool of Pharmacy, University College London, London, UK; ^bFaculty of Business Administration, Osaka University of Economics, Osaka, Japan; ^cSchool of Pharmacy, University of Nottingham, University Park, Nottingham, UK

Abstract

Background: In response to anticipated increased health needs as a consequence of aging populations, and associated rising co-morbidity and medicines use, in both Japan and the UK potential extended roles for community pharmacy are part of health policy agendas. It is widely perceived that community pharmacists do not fully utilize their expertise, which may limit their contribution to health care in their communities and also impact negatively on their own job satisfaction. **Purpose:** The aim of this qualitative study was to identify operations that are perceived as opportunities to demonstrate expertise (ODE) and/or sources of job satisfaction by pharmacists in Japan and England, and explore associated system and contextual factors. **Methods:** Data were gathered with purposively selected pharmacists in Japan and England. An initial questionnaire was forwarded which guided subsequent face-to-face semi-structured interviews. These were audio-recorded to enable qualitative analytical procedures. **Results:** There were 18 participants in England and 13 in Japan. There was a notable association between ODE and job satisfaction. However, ODE was not a sufficient condition for job satisfaction. **Conclusion:** In order for pharmacists to be satisfied with their jobs, not only ODE but also additional contextual factors, i.e. recognition of professionalism, autonomy and positive collaboration were also needed. The findings can inform initiatives in the development of pharmacy services that would be positive for pharmacists whilst potentially contributing to wider public health objectives.

ARTICLE HISTORY

Received 14 October 2020
Accepted 8 January 2022

KEYWORDS

Community pharmacy;
professional expertise; job
satisfaction; community
pharmacist; job
dissatisfaction

Introduction

Demographic change across the world, especially rising numbers of older people, has been accompanied by increases in expenditure on healthcare and medicines [1,2]. In the review of health care in many countries, the potential for community pharmacists to have a more effective role in optimizing the use of medicines and promoting public health has been acknowledged. Policy documents in both UK and Japan indicate that they are considering how to expand the provision of community pharmacy services, enhancing clinical professional services in order to improve the management and outcomes of people with Non-Communicable Diseases (NCDs) and reduce the burden on medical services [3–5].

Supply functions, especially dispensing of prescription medicines remains a core activity of community pharmacy services. Although the Japanese government in 2014, revised Article 25-2 of the Pharmacists' Act in order to oblige pharmacists to undertake medication guidance and care for patients following after dispensing, this was not found to affect the conceptual structure of their role [6]. In Japan, a traditionally in physician-centred system,

interprofessional barriers and pharmacists not well-satisfied with their professional roles has been reported [7]. Also, there is a relatively smaller range of over-the-counter (OTC) medicines available for sale in Japanese pharmacies, than in the UK [8], and as national healthcare insurance covers much of the costs of medicines which are prescribed, this may discourage patients seeking of advice in pharmacies. However, increasing the range of OTC medicines and potential advisory roles of pharmacists remains under review [8].

In the UK seeking advice in the first instance, from a community pharmacist as an alternative to medical services has been encouraged particularly as many people have a pharmacy nearby and often with long opening hours [9,10]. Pharmacists are expected to consult with patients regarding their use of both prescribed and OTC medicines [5]. To enable these developments pharmacists receive some remuneration from the National Health Service (NHS) for specific consultation services and selected healthcare services. Whilst expansion of professional roles of pharmacists in the UK has in the past been hindered by some stakeholder and political opposition, pharmacists are

CONTACT S. Mishima  mishima@osaka-ue.ac.jp

Table 1. Community services in Japan and England.

Common operations	Variants in Japan	Variants in England
Selling General Sales List medicines		
Selling Pharmacy medicines*		
Dispensing prescription medicines• Checking prescriptions• Contacting and liaising with prescribers as needed		Repeat dispensing
Advice as part of dispensing process		
Fee-for-Service consultation services	Prescription optimization service	Medicines Use Review (MUR) ^ New Medicines Service (NMS)
Support for self-care		
Promotion of healthy lifestyle• Smoking cessation• Advice about chronic disease• Weight management		
Other services	Home-visit care services Disposal of unused medicines	Flu vaccination Supervision of methadone and buprenorphine Emergency hormonal contraception

*In Japan and the UK, there are 2 classes of OTC medicines: Pharmacy medicines which can be sold only under the supervision of a pharmacist, and those available for more freely.

^MUR in the UK is an advanced service provided in a private room, but it is a normal service provided at the counter in Japan. NMS in the UK is followed up by telephone, but it is not common in Japan.

increasingly seen as reliable partners by other health professions and are respected by patients [10,11].

Community pharmacy services and job satisfaction in England and Japan

An overview of similarities and differences of service provision from community pharmacies in Japan and England is presented in Table 1. The UK comprises four countries (England, Wales, Scotland, and Northern Ireland), between which there are small differences in pharmaceutical service. This table relates to pharmaceutical services in England, where this study was undertaken.

Whilst governments are reviewing the potential place of community pharmacy in the delivery of health care, from the perspective of pharmacists, job satisfaction is enhanced when their work is challenging and allows them to utilize their special abilities and skills [12,13]. This relationship between job satisfaction and skill utilization (defined as the match between skills required for a role and skills possessed) [12] suggests that opportunities to demonstrate their expertise (ODE) may be expected to enhance the job satisfaction of pharmacists. These ODE refer to opportunities for a person with a professional qualification to fully utilize their skills, reflecting their previous education, training, and work experience.

In the UK, although there are some studies reporting low levels of job satisfaction in the community setting, especially as result of escalating workloads, researchers have found that pharmacists are generally in favour of the new expanded professional operations [14]. Literature about job satisfaction in Japanese community pharmacy settings is limited. However, Okumoto et al. [7] found ODE and job satisfaction to be lacking in Japanese community pharmacy settings at least partly attributing this to insufficient opportunities for 'clinical oriented activities'.

The aim of this paper was to identify operations that are perceived as ODE and/or sources of job satisfaction by pharmacists in Japan and the UK, and to

explore situational and contextual factors that underlie associations between them. Undertaking the study in two countries allowed diversity in setting and context to be taken into account.

Methods

Study settings and design

This study was conducted in two countries: UK and Japan. In the UK, the NHS is a UK wide organization. There are some limited variations in the provision of pharmacy services across the UK; the sample for this study was confined to parts of England to enable consistency of instruments and for logistical reasons (conduct of face-to-face interviews). Similarly in Japan, whilst policy is nationwide the sample was drawn from two regions of the country.

In this qualitative study, data were collected in two steps. A similar methodology was followed in each location. Firstly, following recruitment, an email to participating pharmacists with an initial questionnaire was forwarded, requesting pharmacists to indicate professional activities that they perceived as providing ODEs and/or job satisfaction in order to guide the subsequent individual interviews. Step 2 comprised semi-structured face-to-face interviews with the pharmacists to explore contextual factors and circumstances deemed important conditions for an activity to be perceived as ODE.

Ethical approval was obtained for this study from the University College London (UCL) ethics committee on 15th September 2016 (ID number: 9635/001).

Development of instruments

The initial questionnaire was based on the current NHS community pharmacy services in England [15]. A Japanese operations list [16] was then mapped onto this. The first draft modified following consultation with pharmacists and researchers from the UK and Japan, to ensure inclusion of all permitted

professional operations in both UK and Japan. This instrument was prepared first in English language, then translated independently, and agreed by two researchers (SM and NA) who are fluent in English and Japanese.

For each operation, respondents were, firstly, asked to indicate using a five-point scale (1-never to 5-fully embedded in daily practice) the frequency of conducting the operation in the course of their work; and secondly, their viewpoints (Yes/No) regarding whether each operation was perceived as ODE and a source of job satisfaction and/or dissatisfaction.

For step two, an interview guide was developed, based on the instrument from step 1. For all operations, respondents were asked to describe and explain if, how, and under what circumstances each the operation did, or did not, present ODEs and/or job satisfaction. This guide was constructed to facilitate a qualitative approach to explore pharmacists' rationale for their responses and viewpoints and relate this to their working experience and context.

Sampling and recruitment

In both countries the sampling strategy was devised to include participants of different ages and genders and from a range of workplaces in terms of type of employment and company size. In both countries pharmacists operate from independent pharmacies and multiples. As is usual in a qualitative studies, sample size was governed by principles of data saturation. This requires that sampling and data collection continue until no new themes, subthemes or perspectives appear in the data set and further coding is not possible. An iterative analytical process enabled achievement of data saturation to be determined and confirmed.

In Japan, community pharmacists practicing in the areas around Tokyo (East) and Osaka (West) were contacted through public relations departments of some multiple companies. Both areas include big cities and countryside. After obtaining companies' consent, prospective respondents with required characteristics were approached and recruited by SM.

In the UK, information about the study was diffused through a notice board on the webpage of the Royal Pharmaceutical Society (RPS), and through personal communications, in order to reach community pharmacists in different locations. The researcher then selected participants with appropriate characteristics according to the sampling strategy.

In both settings, before taking part, all selected pharmacists received by email a cover letter, information leaflet, and consent form, and had the option of requesting further verbal information, in Japanese or English as appropriate.

Data collection

In step one, an email with the initial questionnaire was forwarded to participating pharmacists. Following receipt of the completed questionnaire, respondents were contacted by email to arrange a suitable time and location for the interview. These were conducted face-to-face, in a consulting room in a community pharmacy where the interviewee worked or another location if more suitable. All interviews were conducted by SM in either Japanese or English, and audio-recorded. Pharmacists in the UK were offered £20 honorarium as a thank you for their time, although some declined it. Participants in Japan were not offered this as acceptance would not be permissible. Iterative analyses embedded in the data collection process ensured that data saturation was achieved for both samples.

Data processing and analysis

Frequency tables were used to report the responses to the initial questionnaire. These identified the frequency of operations, and proportions of respondents reporting these as ODEs and conferring job satisfaction and dissatisfaction.

In line with principles of qualitative enquiry, data from interviews were transcribed verbatim and anonymized. Qualitative analysis was undertaken separately for data sets in each language and then findings were translated into English for the final stages of analysis. Qualitative analytical procedures were employed with the aid of the QSR NVivo-10[®]. Initial coding of data was according to listed operations and study objectives (primary codes). Constant comparison techniques and analytic induction were employed to develop secondary explanatory codes and explore pharmacists' reasoning regarding their responses. The coding and analysis was undertaken by SM (native Japanese speaker, fluent in English). However, to ensure reliability of procedures, two further pharmacist-researchers collaborated in the development of the coding frame, one of whom (also Japanese and fluent in English) also independently undertook coding of a sample of data.

Results

Characteristics of participants:

The respondents comprised 13 pharmacists in Japan and 18 in England. In both countries, the sample included pharmacists of different ages and genders, and from large multiple through to independent pharmacies and from different parts of the countries. See Table 2.

Table 2. Characteristics of participants.

		Japan (n = 13)	England (n = 18)
Gender	Male Female	7 6	11 7
Age	20–29 30–39 40–49 50–59 60+	3 5 4 1 n/a	6 4 3 2 3
Pharmacy Company type	Independent Multiple (small) Multiple (medium) Multiple (large)	3–10	4 2 4 8

Responses to step 1: initial questionnaire

Perceived frequency of operations

Most operations were common to both settings, although there were a small number of specific services pertaining to pharmacists in just one setting.

Operations that were perceived as opportunities to demonstrate expertise

In both countries many pharmacists identified consultation activities around prescription medicines, (both formally remunerated services and other advice) review of prescriptions and consultation with prescribers, and the sales of Pharmacy medicines (which are available for OTC purchase only from a registered pharmacy), as conferring opportunities for ODE. Pharmacists in England more often identified services and roles in supporting healthy lifestyles, whilst Japanese pharmacists identified home-visit care services.

Operations that are a source of job satisfaction

In both settings those operations that offered ODEs were generally those also identified as sources of job satisfaction. There were some differences between the two settings. For example, self-care and healthy lifestyle services, which pharmacists in England reported to be more often engaged in were seen as sources of job satisfaction. For Japanese pharmacists home-care visits were similarly identified. However, pharmacists in both settings reported dissatisfaction with many activities, including some that they also considered to be ODEs, for example, liaison with prescribers regarding prescription medicines for Japanese pharmacists and medicines use reviews for British pharmacists.

ODE and job satisfaction

The link between ODE and job satisfaction was not straightforward. How and why some operations could be both a positive and/or negative experience for pharmacists is discussed below.

The dispensing process is fundamental to the professional activities of community pharmacists in Japan and the UK, being a principal source of remuneration from health services. Checking prescriptions was seen as an ODE and an important activity in both settings, as this involved some professional judgment and accountability.

It gets to be a routine I suppose, ... but I do, and then at the end of the day I'm the one who's responsible

and I'm the gatekeeper so I think that's what I like, that's how I show my professional expertise. (Pharmacist in England: 17)

However, aspects of dispensing, for example, the technical tasks of filling an order was seen as neither ODE nor a source of job satisfaction.

... you just take something written on prescription ... it's possible for all, even a child [to do it]. (Pharmacist in Japan 13)

Contacts with prescribers regarding prescription medicines were seen as ODE in both countries. However, many pharmacists did not identify this as providing job satisfaction and for many, especially Japanese respondents, it was a source of dissatisfaction. The disposition of the prescriber and, in particular, acknowledgement of pharmacists' expertise was an important determinant of job satisfaction:

A question about a prescription is an opportunity for me to prevent a mistake. When I call the hospital, if doctor is pleased to hear my opinion, I feel job satisfaction. (Pharmacist in Japan 9)

Because doctor's political position is stronger than pharmacist's ... I'm definitely dissatisfied. *When I push back on a doctor's one-sided opinion, but he doesn't get it. He just says "do as I said". In these cases, I must dispense without question. We are not equals.* (Pharmacist in Japan 13)

... I feel even happier when they ring me back and try to communicate with me, saying, "This is what we're doing, what do you think?" "Shall I do this for the patient?" "Is a low dose better, or a high dose better". So this is like good communication with the pharmacy, with the doctor, with the nurse. Yeah, definitely I feel more confident. I feel like I'm happy with the job. Yeah, instead of just checking, dispensing every day. (Pharmacist in England 9)

Medicines review and support with newly prescribed medicines are different types of operation in the UK and Japan. In England, MUR, and NMS are formally remunerated by the NHS on a fee-for-service basis, although the MUR was decommissioned on 31st March 2021 in England. They are well-defined services undertaken in a designated consultation room in the pharmacy, and in the case of NMS include a follow-up with the patient by telephone. In Japan, consultations regarding medicines are not separate from the dispensing process and take place at the counter. This fee will only be paid when the pharmacist properly rationalize more than six prescription medicines.

Table 3. Perceived frequency of operation, ODE and job satisfaction of pharmacists in Japan ($n = 13$) and England ($n = 18$).

Operation	Perceived frequency of operation (mean score)*		Perceived as ODE Number (%)^		Perceived satisfaction Number (%)		Perceived dissatisfaction Number (%)	
	Japan	England	Japan	England	Japan	England	Japan	England
<i>Over-the-counter (OTC) sales</i>								
General sales list medicines	3.5	4.0	7(54)	11(61)	3(23)	8(44)	2(15)	5(28)
Pharmacy medicines	3.5	4.2	11(85)	16(89)	6(46)	14(78)	0(0)	3(17)
<i>Prescriptions</i>								
Checking prescriptions	4.5	4.5	12(92)	13(72)	3(23)	7(39)	1(8)	4(22)
Contacting prescriber	4.3	3.5	12(92)	14(78)	6(46)	11(61)	4(31)	1(6)
Repeat dispensing	n/a	3.8	n/a	8(44)	n/a	4(22)	n/a	7(39)
Dispensing	4.5	4.4	1(8)	13(72)	0(0)	7(39)	3(23)	3(17)
Prescription intervention service	4.5	3.0	11(85)	13(72)	8(61)	11(61)	0(0)	1(6)
Disposal of unwanted medicines	n/a	3.2	n/a	1(5)	n/a	2(11)	n/a	5(28)
<i>Consultation</i>								
Medicines Use Review (MUR)	4.5	4.5	10(77)	16(89)	5(39)	13(72)	4(31)	6(33)
New Medicines Service (NMS)	4.7	3.5	12(92)	16(89)	7(54)	12(67)	0(0)	2(11)
Prescription optimization	4.6	3.8	10(77)	13(72)	6(46)	15(83)	0(0)	2(11)
Support for self-care	3.5	4.4	6(46)	15(83)	2(15)	11(61)	1(8)	3(17)
<i>Promotion of healthy lifestyle</i>								
Support smoking cessation	2.5	1.2	3(23)	9(50)	2(15)	9(50)	1(8)	2(11)
Advice on chronic disease	4.0	3.9	7(54)	14(78)	2(15)	12(67)	2(15)	2(11)
Advice about weight	3.0	3.4	5(39)	9(50)	1(8)	9(50)	2(15)	3(17)
Other								
Home-visit care service	3.5	1.4	11(85)	5(28)	6(46)	6(33)	1(8)	2(11)
Disposal of unused POM at home	2.9	1.3	3(23)	2(11)	2(15)	0(0)	2(15)	6(33)
Flu vaccination	n/a	3.6	n/a	10(56)	n/a	10(56)	n/a	2(11)
Supervision of methadone/ buprenorphine	n/a	3.2	n/a	10(56)	n/a	5(28)	n/a	2(11)
Emergency hormonal contraception	n/a	2.8	n/a	12(67)	n/a	9(50)	n/a	1(6)

*Perceived frequency of each operation on Likert scale (1:never; 2:rarely; 3:sometimes; 4:often; and 5 embedded in daily practice).

^Numbers are small; % presented for comparative purposes.

These operations were viewed as ODE in both countries, but for a range of reasons could also be a source of satisfaction and/or dissatisfaction. Job satisfaction could be a consequence of a positive clinical outcome. In both countries appreciation by the patient or acceptance of advice was identified as having a positive impact on job satisfaction.

We don't pressurize at all, so when I do an MUR I think ... it's a good one and I've got satisfaction, and I know that the patient has learned something so that's why. (Pharmacist in England 4)

... A side effect might happen for drinking same medicine for several years, though the patient who takes medicine long often says "I well know, I don't need your explanation". (Pharmacist in Japan 11)

Dissatisfaction regarding MUR in England arose from company commercial pressure to conduct them, as they attract additional health service funding. This was seen as disregarding of pharmacists' professional autonomy and judgment about patients' needs or potential benefits of the MUR.

Consultation activities around lifestyle advice, support for self-care, advice on chronic disease, and selling pharmacy medicines were perceived as ODE and provided job satisfaction, especially for pharmacists in England. Throughout the UK these services from community pharmacies are actively promoted to the public, accepted by health professionals and patients, and viewed by pharmacists as an important part of their role.

If they [patients] can increase their knowledge of self-care rather than just taking medication without changing their habits, that would be number one on my list. (Pharmacist in England 16)

Some pharmacists in Japan reported that they may not feel confident giving professional advice regarding health in daily life.

There are many opportunities. Although, I just answer something general ... If I could give good advice, it [would be best]. (Pharmacist in Japan 1)

... I'll just say "Please go to a hospital" or "Please consult a doctor". But that is not good advice. (Participant in Japan 6)

As apparent from Table 3, job satisfaction is notably linked with ODE. However, the findings in the interviews indicate that ODE alone does not lead to job satisfaction. Those operations that most commonly conferred job satisfaction involved ODE, along with constructive communication channels, and respect from, others: both health professionals and patients. The generally higher levels of job satisfaction among UK pharmacists compared to those in Japan may be partly attributable to formal consultation opportunities, and established roles in providing face-to-face advice OTC to patients regarding chronic disease and lifestyle.

I just come out [of the dispensary] myself without anybody asking me, I like to be out, so yeah if I'm out I've got job satisfaction, if I'm in the dispensary I don't. (Pharmacist in England 16)

Discussion

An association between provision of clinical pharmacy services and job satisfaction of pharmacists has been reported by previous researchers [14,17]. However, in this study whilst ODEs, including clinical services were identified as conferring job satisfaction, this was contingent on other contextual factors. In particular, pharmacists in Japan, commonly cited relationships with, and lack of respect from, prescribers who were not receptive to professional input by pharmacists and patients who did not recognize and accept the knowledge and skills of pharmacists in providing advice. Thus, operations that otherwise were perceived as ODEs and might enhance job satisfaction, could become a source dissatisfaction. ODEs accompanied by recognition and acceptance of their knowledge and skills was similarly valued by pharmacists in England. The importance of relationships with staff, colleagues, other health professionals, as well and patient contact as a source of job satisfaction for pharmacists has been highlighted by other researchers [18–20]. The ability to exercise professional autonomy (away from commercial pressures and micromanagement of, especially non-pharmacist managers in the organization) may also be an important requirement for ODEs to also be a source of job satisfaction [18].

In both the Britain and Japan, expansion of community pharmacy services, in order to improve management and outcomes of people with NCDs and reduce the burden on medical services has been proposed in health policy [3–5].

There is evidence that the expansion of professional roles of community pharmacists in the UK has resulted not only improvements in patients' medicines adherence and condition of minor ailments [21,22], but also will have led to the potential savings to health care expenditure [22–24]. Moreover, it has also been pointed out that providing opportunities for vaccination against epidemic like the influenza at community pharmacies will lead to potential reductions in medical costs and improvements in social productivity [25].

In Japan, Okada et al. [26] conducted a study which involved the implementation of lifestyle in community pharmacies [26]. The findings of this study indicated that implementation of a lifestyle advice programme in pharmacies is feasible and may lead to positive clinical benefits such as reductions in blood pressure.

Increasing pharmacists' job satisfaction has been linked to better quality services. For example, satisfaction with time to provide clinical services has been associated with a decreased risk of dispensing errors, more satisfied patients, and greater organizational productivity [27,28].

Across the globe, pharmacists are often not seen as, or do not see themselves as, fully integrated into the

health care services [29], although in diverse parts of the world their role as consultants for patients in the management of illness and use of medicines is acknowledged [30,31]. For pharmacists, system, cultural and perceptual barriers have been perceived as preventing ODE from also becoming a source of job satisfaction. In expanding the roles, these barriers should be addressed; facilitating wider integration of pharmacists into health care systems, and enabling more effective utilization of pharmacists' knowledge and skills.

Limitations of the study

This study involved small samples of pharmacists, and for logistical reasons was restricted to particular locations within each country. Thus, whilst the sampling strategy aimed to include a diversity in characteristics of pharmacists and settings, representativeness of the wider population of pharmacists in either country cannot be assumed. However, the data uncovered generally consistent messages, and concurred with extant literature, and therefore may be expected to resonant with pharmacists beyond the sample. The differing professional settings and roles of pharmacists in Japan and England will have a potential impact on comparability and interpretation of data. However, qualitative methodology in the interviews enabled exploration of contextual factors. Community pharmacy structure and operations in many parts of the world have many common features: usually operating in the private sector, often with links to public sector provision and primary care. Thus the findings of the study may have relevance beyond the two countries studied.

Conclusion

This qualitative study examined activities and underlying contextual factors that are determinants of job satisfaction for pharmacists. Professional, especially clinical operations, are often identified as ODE. These activities may also enable pharmacists to contribute to wider health policy objectives, including promoting more effective use of medicines and public health. However, whilst, job satisfaction was notably associated with ODE, ODE were not a sufficient condition for job satisfaction. Professional autonomy, as well as respect from, and opportunities to work with, other health professionals and patients was important to pharmacists. Extended community pharmacy services remain part of health policy in England and Japan as well as other countries throughout the world. An important focus for this should be the operation of these services as part of wider health care provision.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

This work was supported by Japan Society for the Promotion of Science: [Grant Number 15KK0140].

Notes on contributors

Dr. Shigeaki Mishima completed the Graduate School of Economics, Kyoto University, Japan. He has worked at Osaka University of Economics since 2009. He is currently Professor. His research area is the management of community pharmacies, specially big chain ones.

Dr. Naoko Arakawa obtained her Bachelor in Pharmacy from the Meiji Pharmaceutical University, Japan. She moved to the UK for her postgraduate study in 2010 and completed her PhD at the University College London in 2016. She is currently Assistant Professor in University of Nottingham.

Professor Ian Bates holds the Chair of Pharmacy Education at the UCL School of Pharmacy as Head of Educational Development and is a Faculty Fellow of the Royal Pharmaceutical Society. He is currently on secondment to the National Health Service in London as academic lead across the university teaching hospitals.

Felicity Smith BPharm, MA, PhD FRPharmS, is a registered pharmacist with experience of hospital and community pharmacy. After completing PhD at St Bartholomew's Medical College in London, she joined the academic staff of UCL, and is currently Professor of Pharmacy Practice.

References

- [1] MHLW. *Iryouhi no doukou* (Trends in Healthcare expenditure). 2018. (Accessed 18.03.20) Available from: <https://project.nikkeibp.co.jp/behealth/atcl/feature/00010/102400022/n.jpg>
- [2] Harker R. NHS funding and expenditure. House of Commons Library Briefing Paper. 2019; CBP0724:1–16. Available from: <https://researchbriefings.files.parliament.uk/documents/SN00724/SN00724.pdf>
- [3] MHLW. *Kanzya no tameno yakkyoku bizon* (Pharmacy Vision for Patient). 2015;1–11. Available from: https://www.mhlw.go.jp/file/04-Houdouhappyou-11121000-Iyakushokuhinkyoku-Soumuka/gaiyou_1.pdf
- [4] Pharmaceutical Services Negotiating Committee, Vision and Workplan. Available from: <https://psnc.org.uk/psncs-work/psnc-vision-and-work-plan/>
- [5] PSNC. The Community Pharmacy Contractual Framework for 2019/20 to 2023/34: supporting delivery for the NHS Long Term Plan. 2019;1–26. Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/819601/cpcf-2019-to-2024.pdf
- [6] Oshima S, Yamaguchi M, Okita M, et al. Discrepancies between patients' and pharmacists' perceptions of the role of community pharmacists as advisors on the use of pharmaceuticals in Japan: a comparison prior to and following revision of the Pharmacists' Act. *SAGE Open Med*. 2019;7:1–9. Available from:

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6429651/>

- [7] Okumoto K, Sanagawa H, Edward PA, et al. Assessment of Japanese pharmacists' perceptions towards community pharmacy. *Iryo Yakugaku (Japanese J Pharm Health Care Sci)*. 2006;32(2):146–153.
- [8] Nomura K, Kitagawa Y, Yuda Y, et al. Medicine reclassification processes and regulations for proper use of over-the-counter selfcare medicines in Japan. *Risk Manag Healthc Policy*. 2016;9:173–183.
- [9] Paudyal V, Hansford D, Cunningham S, et al. Pharmacy assisted patient self care of minor ailments: A chronological review of UK health policy documents and key events 1997-2010. *Health Policy*. 2011;101(3):253–259.
- [10] Saramunee K, Dewsbury C, Cutler S, et al. Public attitudes towards community pharmacy attributes and preferences for methods for promotion of public health services. *Public Health*. 2016;140:186–195.
- [11] Hindi AMK, Schafheutle EI, Jacobs S. Patient and public perspectives of community pharmacies in the United Kingdom: A systematic review. *Health Expect*. 2017;21(2):409–428.
- [12] Humphrys P, O'Brien GE. The relationship between skill utilization, professional orientation and job satisfaction for pharmacists. *J Occup Psychol*. 1986;59(4):315–326.
- [13] Cox ER, Fitzpatrick V. Pharmacists' job satisfaction and perceived utilization of skills. *Am J Health-Syst Pharm*. 1999;50(17):1733–1737.
- [14] Lea VM, Corlett SA, Rodgers RM. Workload and its impact on community pharmacists' job satisfaction and stress: a review of the literature. *Int J Pharm Prac*. 2012;20(4):259–271.
- [15] Pharmaceutical Services Negotiating Committee. Available from: <https://psnc.org.uk/services-commissioning/>
- [16] MHLW. *Yakkyoku gyomu unei gaidorain ni tsuite* (Regarding pharmacy operation management guideline). 1993. Available from: https://www.mhlw.go.jp/web/t_doc?dataId=00ta7194&dataType=1&pageNo=1
- [17] Mott DA, Doucette WR, Gaither CA, et al. Pharmacists' attitudes toward worklife: results from a national survey of pharmacists. *J Am Pharm Assoc*. 2004;44(3):326–336.
- [18] Ferguson J, Ashcroft D, Hassell K. Qualitative insights into job satisfaction with management among community and hospital pharmacists. *Res Soc Admin Pharm*. 2011 Sep;7(3):306–316. doi:10.1016/j.sapharm.2010.06.001
- [19] Gaither C, Nadkarni A. Interpersonal interactions, job demands and work-related outcomes in pharmacy. *Int J Pharm Prac*. 2012 Apr;20(2):80–89. doi:10.1111/j.2042-7174.2011.00165.x
- [20] Breuker C, Teasdale J, Mallet L, et al. Communication between hospitals, family medicine groups and community pharmacists during transitions of care interventions. *Res Soc Admin Pharm*. 2021; S1551-7411(21)00340-5. doi:10.1016/j.sapharm.2021.09.006.
- [21] Elliott RA, Boyd MJ, Salema NE, et al. Supporting adherence for people starting a new medication for a long-term condition through community pharmacies: a pragmatic randomised controlled trial of the new medicine service. *BMJ Qual Saf*. 2016;25(10):747–758.
- [22] Watson MC, Ferguson J, Barton GR, et al. A cohort study of influences, health outcomes and costs of

- patients' health-seeking behaviour for minor ailments from primary and emergency care settings. *BMJ Open*. 2015;5(2):e006261. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4336457/>
- [23] Hendrie D, Miller TR, Woodman RJ, et al. Cost-effectiveness of reducing glycaemic episodes through community pharmacy management of patients. *J Prim Prev*. 2014;35(6):439–449.
- [24] Elliott RA, Tanajewski L, Gkountouras G, et al. Cost effectiveness of support for people starting a new medication for a long-term condition through community pharmacies: an economic evaluation of the New Medicine Service (NMS) compared with normal practice. *PharmacoEconomics*. 2017;35:1237–1255. doi:10.1007/s40273-017-0554-9
- [25] Rodrigues CM, Plotkin SA. Impact of vaccines; health, economic and social perspectives. *Front Microbiol*. 2020;11:1–15. doi:10.3389/fmicb.2020.01526
- [26] Okada H, Onda M, Shoji M, et al. Effects of lifestyle advice provided by pharmacists on blood pressure: The Community Pharmacists Assist for Blood Pressure (COMPASS-BP) randomized trial. *Biosci Trends*. 2017;11(6):632–639.
- [27] James KL, Barlow D, McCartney R, et al. Incidence, type and causes of dispensing errors; a review of the literature. *Int J Pharm Prac*. 2009;17(1):9–30.
- [28] Payakachat N, Ounpraseuth S, Ragland D, et al. Job and career satisfaction Among pharmacy preceptors. *Am J Pharm Educ*. 2011;75(8):1–10.
- [29] Anderson S. Community pharmacists must become employees of the NHS. *Pharm J*. 2020;305(7939):23–25.
- [30] Memisoglu M. Marketing communications for over-the-counter drugs and non-pharmaceutical products: the professionals' perspective. *Int J Healthc Manag*. 2020;13(supplement1):60–70.
- [31] Srivastava RK, Wagh S. Study of consumers' perception towards pharmaceutical over-the-counter products in emerging markets. *Int J Healthc Manag*. 2018;11(1):60–70.