

Overview of Indonesian Community Pharmacy: Understanding Practice Changes

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Abstract

Community pharmacy practice in Indonesia has shifted to a patient-centered model, offering a range of services that include treatment advice, chronic disease management, and public health promotion. This shift benefits consumers who visit community pharmacies as their initial healthcare point. The Indonesian healthcare system, a mix of public and private providers, is governed by a decentralized structure, fostering significant investment in private healthcare despite access limitations due to financial capacity. Medicines distribution, managed by the District Health Office, ensures supply to primary healthcare facilities, with community pharmacies regulated by the Ministry of Health and the Indonesian National Food and Drug Agency. Despite stringent regulations mandating comprehensive services, most pharmacists are not remunerated for their services. Pharmacy staff, including formally qualified pharmacists and pharmacy technicians, are registered professionals, with recent trends indicating a shift towards employing pharmacy technicians to enable pharmacists to focus on clinical roles. Economic factors and innovative service delivery modes, such as telepharmacy and online purchasing, are expected to influence future practices, enhancing the pharmacist's role in chronic disease management and other health conditions. The evolving community pharmacy practice in Indonesia reflects broader changes in the healthcare system and professional roles, with continued progression anticipated.

Keywords: Community pharmacy; Community pharmacy services; Developing country; Healthcare system; Indonesia; Pharmacist

INTRODUCTION

In recent years, the practice of community pharmacy in Indonesia has undergone substantial changes, reflecting a broader shift towards a more integrated and patient-centered healthcare model (Hermansyah et al., 2018a; Hermansyah et al., 2018b; Wulandari et al., 2022). This transformation is not merely a superficial expansion of services but a fundamental realignment of the roles and responsibilities of pharmacists within the healthcare system. As Indonesia's population grows and the healthcare landscape evolves, community pharmacies have become initial access points for a variety of health services, ranging from chronic disease management to public health care (Hermansyah et al., 2020). This evolving role is driven by

both the increasing demand for accessible healthcare and the strategic efforts of the Indonesian government to improve health outcomes across the nation. Through a comprehensive review of these changes, we can gain a deeper understanding of how community pharmacy practices are adapting to meet contemporary health challenges and the impact these adaptations have on patient care and public health.

Extensive research has been conducted on community pharmacies in Indonesia, providing valuable insights into the current state of practice and the impacts of recent changes (Wiryanto et al., 2014; Mizranita and Pratisto, 2015; Hermansyah et al., 2018a; Hermansyah et al., 2020). These studies have documented the benefits of expanded pharmacy services, such as improved patient outcomes and increased access to healthcare. For example, research has shown that community pharmacies are effectively managing chronic diseases, providing essential health education, and promoting public health initiatives. These findings underscore the importance of community pharmacies in delivering comprehensive healthcare services (Supardi et al., 2011; Wiryanto et al., 2014; Herman and Handayani, 2015; Mizranita and Pratisto, 2015; Wulandari et al., 2022).

However, these studies also reveal significant challenges in implementing changes in community pharmacy practice. Issues such as regulatory problems, lack of adequate remuneration for pharmacists, and varying levels of access to resources highlight the complexities of evolving healthcare practices. Understanding these challenges is important for developing strategies to support the ongoing transformation of community pharmacy services (Hermansyah et al., 2018b; Hermansyah et al., 2020).

The aim of this review is to address several key questions: How effective are the expanded services in improving patient outcomes? What regulatory and operational challenges do community pharmacies face? How do economic factors and healthcare system dynamics shape the future of community pharmacies in Indonesia? By examining these aspects, the review seeks to provide a comprehensive understanding of the evolving landscape of community pharmacy practice, highlighting its contributions to patient-centered care, health promotion, and the overall healthcare system.

This manuscript aims to inform healthcare policymakers, practitioners, and the public about the vital role of community pharmacies in Indonesia. It explores their expanded functions, regulatory frameworks, and the potential for future developments, underscoring the importance of these pharmacies in enhancing healthcare delivery and addressing the needs of the Indonesian population. This review offered a well-rounded perspective on the current and future state of community pharmacy practice in Indonesia.

Community pharmacy practice in Indonesia has encompassed patient-centred care by involving a wide range of professional services and public health initiatives (Hermansyah et al., 2018a; Miller and Goodman, 2016; Makhlof et al., 2021; Mizranita et al., 2021; Wulandari et al., 2022; Mizranita et al., 2023). Many healthcare services have increased a diversity range from the provision of advice about lifestyle, pharmacological and non-pharmacological treatments, advice on symptoms and product sales for managing minor ailments (Hermansyah

et al., 2018b; Wulandari et al., 2022). These extensions and diversification of community pharmacy services benefit to consumers who frequently visit a community pharmacy as their first destination for their health problems (Andayani and Satibi, 2016; Ferdiana et al., 2021; Mizranita et al., 2023). Indonesian pharmacists have delivered their professional services beyond the traditional roles such as the provision of medicines information, chronic disease management services, more formalized management of minor ailments, public health promotion, medication management services, and providing therapeutic decisions (e.g. smoking cessation, blood glucose and blood pressure measurements) (Kristina et al., 2015; Hermansyah et al., 2018a). Through these expanded services, Indonesian community pharmacy makes a major contribution to patient-centered care, health promotion and relief of symptoms for patients who seek advice for their health-related problems (Hermansyah et al., 2018a; Mizranita et al., 2021).

The Indonesian health care system

The Indonesian health care system has a mixture of public (state) health care and private providers that respect patient's health decisions and choices (the people have the freedom to choose). The public system is administered in accordance with Indonesia's decentralized government system, with responsibilities divided among the central, provincial, and district/municipal governments. The Indonesian Central Ministry of Health is responsible for providing standard and strategic directions, regulation and assuring financial and human resources availability. The provincial government has responsibilities of managing provincial-level healthcare facilities and monitoring district health services. District/municipal government manages the operation of district community health centres (Pusat Kesehatan Masyarakat/Puskesmas) and associated subdistrict health services facilities.

The rapid population growth will have a major effect on the health care system. Therefore, the Indonesian government has encouraged investment in the healthcare sector, resulting in an increasing number of private profit-driven providers. Private health providers are mostly self-funded. The private sector encompasses a wide range of private hospitals, individual practices (e.g. physicians and midwifery clinics), community pharmacies and clinical laboratories. However, the Indonesian government regulates the private sector through mandatory accreditation, registration, and licensing (Mahendradhata et al., 2017a). Access to the private health sector is only limited by people's ability and willingness to pay. Indonesians are free to select any private insurance policy based on their personal needs and ability to pay.

Medicines distribution in Indonesia

Since decentralization occurred in 2000, the medicine supply in the public sector has been regulated and managed by the local district government (Holloway, 2011). The District Health Office (DHO) purchases and distributes supplies and medicines to the following primary healthcare facilities: community health centres (Puskesmas), maternal child health clinics (Pondok Bersalin Desa/Polindes), community health clinics (Pos Pelayanan Terpadu/Posyandu), and mobile health clinics (Pusat Kesehatan Masyarakat

Keliling/Puskesmas). A budget is provided from the central government to the DHO to manage medicines supply. District hospitals manage their procurement using the local government budget and either by charging for medicines directly to non-insured patients or the government or private insurance providers (Holloway, 2011).

All medicines are provided free of charge to patients who visit community health centres. A patient pays an Indonesian Rupiah (Rp) registration fee of 15,000 (approximately AUD 1.5) at the community health centre. A community health centre reports the physical stock on hand and the expected stock of medicines to the district health office every month (Holloway, 2011). Usually, a pharmacist is assigned to a community health centre pharmacy to manage the supply and dispense medicines. However, it is common in many districts to have no pharmacists in community health centres. Therefore, community health centre pharmacies are supervised by pharmacy technicians or other staff in the DHO (Holloway, 2011).

In Indonesia, community pharmacies and drugstores are licensed by the local government through the Ministry of Health (MoH) office and the Indonesian National Food and Drug Agency (locally known as Badan Pengawasan Obat dan Makanan/BPOM) will monitor their compliance with the regulations (President of the Republic of Indonesia, 2017). Once the license is obtained, the licensed retail (merchant) submits to the MoH and BPOM, including the provincial level. The BPOM monitors ongoing compliance with the safety regulations. In addition, the BPOM supervises foods and medicines in Indonesia (Mahendradhata et al., 2017b; President of the Republic of Indonesia, 2017).

Indonesian community pharmacy structure

There are more than 24,000 community pharmacies in Indonesia, where half of the medicines available (including prescription-only medicines) are sold through general stores, private practices, supermarkets, and street vendors. The private providers (including community pharmacies) dominate, with around 80% of the market supplying over 17,000 types of medicines, of which only 15% are generic medicines (Mahendradhata et al., 2017b; Marlina and Sardjono, 2018).

Community pharmacies in Indonesia range from small to large chain pharmacies. The Indonesian MoH stated that in 2019, Indonesia had 26,658 community pharmacies, of which approximately 60% were located on Java Island (Ministry of Health Indonesia, 2017; Ministry of Health Indonesia, 2019). An independent pharmacy is owned individually, chain pharmacies can be owned by individual or a group of owners who use the same retail branding in various locations, and state-owned enterprise community pharmacies are owned by the government. Community pharmacy ownership is not restricted to pharmacists. However, by legislation, a non-pharmacist owner must employ a pharmacist as a mandatory requirement for opening a pharmacy, and legally, a pharmacist must provide professional responsibilities during the pharmacy business hours (Indonesian Health Minister, 2004).

Community pharmacies in Indonesia generate their income from general sales of medicines and other pharmaceutical products (Andayani and Satibi, 2016). Medicines in Indonesia can be classified as follows:

1.1.1. Over-the-counter (OTC) medicines (a green circle logo) are legally allowed to be sold by pharmacists without needing a prescription to the community. OTC medicines are easily purchased in the community pharmacies and drugstores. These medicines are also available off the shelf in non-pharmacy outlets without prescription (e.g., paracetamol, antacids, vitamins, etc.).

1.1.2. Cautionary labelled medicines (a dark blue circle logo) are limited OTC medicines that can be sold to the public using a warning label (e.g. antihistamines, chloroquine, etc.).

1.1.3. Pharmacist-only medicines are known as Obat Wajib Apotek/OWA (Indonesian Health Minister, 2021) (a term similar to “pharmacy medicines” in the United Kingdom (UK) (Tullett et al., 2003) and pharmacist-only medicines in Australia) (Benrimoj and Roberts, 2005). Pharmacist-only medicines in Indonesia are available to the public without a prescription and must be supplied by a pharmacist on the premises or under the supervision of a pharmacist. Some antibiotics are listed as pharmacist-only medicines or OWA in Indonesia, such as tetracycline skin salve, chloramphenicol eye drops, and anti-tuberculosis medicines (can be sold with pharmacist’s recommendations for repeat medicines after being used as initial therapy with an initial prescription).

1.1.4. Prescription-only medicines (a red circle logo and must be supplied with a valid prescription).

1.1.5. Narcotics and psychotropic substances (must be supplied with a valid prescription from a licensed prescriber by law).

By law, a community pharmacy is authorized to stock all classifications of medicines. A non-pharmacy outlet (e.g. drugstore) is only allowed to supply OTC and limited OTC medicines when qualified pharmacy technicians are in charge on the premises. However, non-pharmacy outlets such as kiosks, hawkers, and markets can be operated by anyone and are not permitted to sell OTC.

Community pharmacy regulations

Community pharmacy practice and services in Indonesia are highly regulated by the Pharmacy Practice Act and Community Pharmacy Decree (Indonesian Health Minister, 2017). Regulation covers the scope of pharmacy practice by authorizing pharmacists as the main provider of pharmacy services, community pharmacy operations, including ownership and the range of services required to be provided (e.g. medication counselling, self-medication, pharmacy home care services, and medication monitoring services). While the government requires community pharmacies to provide such services, no remuneration is allocated for pharmacists and pharmacy services in these acts. Further, the Indonesian MoH established the

Indonesian Pharmacy Service (IPS) standard practice guidelines, which incorporate a set of standard operating procedures (SOPs) that require implementation in all community pharmacies in Indonesia (Indonesian Health Minister, 2017).

Community pharmacy workforce

Pharmacy staff providing community pharmacy services are qualified pharmacists and pharmacy technicians who have gained formal qualifications. The qualified pharmacy staff are registered pharmacists and pharmacy technicians who have formal training and educational qualifications. To become a pharmacist in Indonesia, a student undertakes a minimum of five years of pharmacy education. This five-year program is divided into two parts: a four-year B.Pharm and a one-year pharmacist degree (apothecary degree) (Andayani and Satibi, 2016). On the other hand, in 2020, the President issued a government regulation that a pharmacy technician who completed either a three-year Diploma course in pharmacy or a Dip.Pharm in pharmaceutical and food analysis (pharmacy analyst) or BPharm without the one-year pre-registration pharmacist program. Pharmacists and pharmacy technicians practicing in clinical settings must be registered by the National Pharmacist Board (KFN), the Indonesian Pharmacists Association (IAI) for pharmacists, and the Indonesian Pharmacy Technicians Association (PAFI) for pharmacy technicians (Indonesia Health Minister, 2011). A pharmacy student must pass a test before being registered. The President may issue Government regulations as required to implement laws.

An individual pharmacist working within their scope of practice may depend on their training, experience, expertise, workplace, and competency, which matures in response to healthcare needs (Pharmaceutical Society of Australia (PSA), 2016). Currently, pharmacists' scope of practice in Indonesia varies from managing the preparation and supply of medicines to performing interprofessional practice with doctors and patients (Hermansyah et al., 2018a; Athiyah et al., 2019; Ferdiana et al., 2021; Mizranita et al., 2022).

Over the past decade, there has been an increasing interest in utilizing pharmacy technicians to deliver pharmacy services, mainly to provide the opportunity for pharmacist to perform their clinical roles in developing countries (Kadia and Schroeder, 2015). While pharmacists concentrate on providing patient care, pharmacy technicians are managers of medicine distribution, where they are capable. Interestingly, Indonesia's cases are quite different from those in other developing countries, where non-pharmacists and non-qualified staff often deliver many pharmacy services due to a lack of available pharmacists and pharmacists' absence.

Future practice in Indonesian community pharmacy

Future practices for community pharmacy in Indonesia are mainly influenced by economic aspects such as health-related product sales and professional services and encompass not only the product aspect but also the many modes of service delivery, including telepharmacy and online purchasing. Pharmacy product sales can be included as supplies of non-prescription medicines, prescription medicines and other goods ranging from wound dressings, diagnostic

tools (e.g. blood pressure kits), and other medical devices. Supply and sales of prescription medicines (particularly pharmacist-only medicines) involve the pharmacist or patient in managing minor ailments. For over a decade, there has been a shifting trend for pharmacy products from prescription to pharmacist-only or non-prescription medicines status. Professional services, including clinical interventions and medication reviews, are expected to strengthen the pharmacist's role in managing chronic diseases and other health conditions.

In addition, professional services such as clinical intervention and medication reviews are likely to influence future practice for community pharmacies and strengthen the pharmacist's role in the healthcare system. These clinical interventions and reviews include involvement in the management of chronic diseases such as diabetes mellitus and hypertension.

CONCLUSION

Community pharmacy practice in Indonesia has significantly evolved over recent years, transitioning from a traditional, product-focused model to a more integrated, patient-centered approach. This shift has been driven by both the changing healthcare needs of the population and strategic government policies aimed at improving healthcare delivery and outcomes. The evolution of community pharmacy practice in Indonesia is a result of both professional developments within the pharmacy sector and proactive government policies. The integration of new services and the strategic expansion of roles have positioned community pharmacies as essential components of the healthcare system. However, to fully realize their potential, it is imperative to address the regulatory and economic challenges identified in this review. By doing so, community pharmacies can continue to enhance healthcare delivery and meet the evolving needs of the Indonesian population.

CONFLICT OF INTEREST

All authors declared that there was no conflict of interest.

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