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Perceptions of Practice Towards Manageable Ailments in Indonesian Community Pharmacies: A Cross-Sectional Study

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KEYWORDS

Common Ailments, Pharmacists, Pharmacy Technicians, Pharmacy Services, Indonesia.

ABSTRACT

Managing common ailments is increasingly important in developing countries. It is essential for community pharmacists and pharmacy technicians to manage these ailments effectively to enhance treatment outcomes. While developed countries have successfully implemented such services, Indonesia lacks sufficient documentation of these practices. This disparity is significant since community pharmacies frequently serve as the initial point of contact for the community to seek advice regarding their health problems, particularly for common ailments. Community pharmacies play a significant role in the healthcare system due to their accessibility and trustworthiness in improving public health. This study aimed to evaluate the practice and experiences of pharmacists and pharmacy technicians in managing common ailments and their methods and experiences in providing these services. Surveys were conducted from May to June 2023 at professional seminars intended for pharmacists and pharmacy technicians. Pharmacists' and pharmacy technicians' perceptions of managing common ailments were compared using binary logistic regression. One hundred forty pharmacy technicians and 180 pharmacists in all took part. The findings showed that among the 13 common ailments, acute pain, dermatitis, diarrhoea, eczema, indigestion/heartburn, and wounds ($P<0.001$) were perceived to be under the pharmacist's practice scope. On the other hand, $P<0.001$ indicated that conditions such as dandruff, constipation, and mild headaches were considered within the pharmacy technician's practice scope. Significant disparities in perceptions of managing diarrhoea, indigestion, and cough and cold symptoms were also found in the study, underscoring the diverse range of practice areas. Both groups were found to be reluctant to charge for consultations for pharmacy services in managing common ailments, with a higher percentage of pharmacy technicians being against the opinion. The overall findings of this study highlight the significance of focused education for pharmacists and pharmacy technicians in improving patient care in Indonesian community pharmacies. Defining clear roles for each professional is essential to enhance training initiatives in creating accessible healthcare facilities for managing common ailments.

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INTRODUCTION

A community pharmacy is described as a pharmacy that provides access to medicines and their provision for a particular community (also identified as retail premises) (Shirdel et al., 2021). Published literature describing community pharmacy demonstrates a notable practice shift over the past two decades (Yuan et al., 2019; Yusuff et al., 2021). The traditional community pharmacy model focused on dispensing medicines to patients based on a doctor's prescription. Additionally, screening valid prescriptions and providing interventions and information on the safe and effective use of both prescribed and non-prescribed (over-the-counter/OTC) was standard practice (Babar, 2021; Mizranita & Pratisto, 2015).

In many developing countries, community pharmacies are often the first point of contact for minor health problems because the staff are trusted, have options to buy medicines in small quantities and provide easy access to essential medicines (often without prescription). Pharmacies are conveniently located and provide more prolonged opening hours into the evenings (Belachew et al., 2021). People can visit a pharmacy without a prior appointment and receive professional advice immediately from a pharmacist. This is in contrast to a doctor's practice, where people must make an appointment in advance for a consultation, pay a consultation fee, and are often required to wait. There is no doubt that community pharmacy offers more convenient encounters within the healthcare system (Yong et al., 2020)

In developing countries, the practice of community pharmacists and pharmacy technicians is often hindered by factors such as (1) inadequate pharmacy staff training, (2) profit and business orientation, (3) lack of pharmacists' presence, (4) non-pharmacist ownership, (5) lack of contact with the patient, and (6) low level of quality services (Kellar et al., 2021; Mizranita et al., 2021). Additionally, optimal management of minor ailments is often compromised as many patients practice self-medication of over-the-counter medications, bypassing healthcare providers (Makhlouf et al., 2021). Community pharmacists and pharmacy technicians need a solid foundation in pharmacy knowledge to effectively contribute to common ailment management. A well-trained and accessible pharmacy staff is a crucial factor that may influence patients to seek common ailment services from a community pharmacy (Makhlouf et al., 2021; Yusuff et al., 2021).

The clinical knowledge of community pharmacists and pharmacy technicians in managing common ailments is vital for improving healthcare outcomes (Kc et al., 2020; Mizranita et al., 2023). Insufficient clinical knowledge is one of the main barriers to providing appropriate interventions (Athiyah et al., 2019). Whilst the provision of minor ailment services and other expanded pharmacist roles (e.g., medication therapy management, immunisation) has been successful in developed countries (Dineen-Griffin et al., 2020; Mengistu et al., 2019), these practices and the knowledge of Indonesian pharmacists regarding these roles have not been thoroughly investigated. Given that most of Indonesian pharmacists and pharmacy technicians practice in community settings, their experience and knowledge in managing common ailments remain undocumented. Establishing a basis for improving and developing community pharmacies as competent and accessible healthcare facilities for managing minor ailments is essential.

This is the first study to document the practices of Indonesian community pharmacists and pharmacy technicians in managing common ailments. This study aimed to document the roles of community pharmacists and pharmacy technicians in managing common ailments, their practices, and their perceived experiences in delivering these services. This study will provide insights into current practices for policymakers, health practitioners, and academics and identify the gaps for improvement in pharmacy services. This study provides a pathway of how community pharmacy services might be structured in future practice.

METHOD

This study was approved by Universitas Sebelas Maret, Dr. Moewardi Hospital, Surakarta, Indonesia with approval number 383/III/HREC/2023; and the Indonesian Pharmacists Association (IAI) with approval number B1-002/PC-IAI/Surakarta/IV/2023.

Pharmacist and pharmacy technician respondents were surveyed during the IAI and PAFI seminars, which they attended to obtain credits (SKP) necessary for maintaining their competency certificates or re-registration. These certificates are mandatory for practising in a community pharmacy

and require renewal every five years. The inclusion criteria for this study were pharmacists and pharmacy technicians practising in a community pharmacy in Surakarta, Indonesia and attending the IAI and PAFI seminars. The exclusion criteria included pharmacists and pharmacy technicians working in a doctor's or skin care clinic.

A sample of approximately 120 community pharmacists and 120 pharmacy technicians was used to enable statistical analysis. The questionnaires used in this study were adapted from a previous study (Mizranita et al., 2021). The questionnaires were distributed on separate IAI and PAFI seminars in Surakarta, Indonesia. The questionnaires were distributed at the registration desk prior to each seminar. To maintain anonymity, participants returned the completed questionnaires at the same registration desk.

Data analysis was performed using SPSS version 25.0 software. Years of practice and age groups were dichotomised according to the distribution of responses and analysed using non-parametric tests. Descriptive statistics summarises demographics and respondent characteristics. The age of respondents was categorised based on median values. Binary logistic regression was used to compare perceptions of managing ailments between pharmacists and pharmacy technicians. In this study, the scope of common ailments was presented within the pharmacy technician's scope, only within the pharmacist's scope and beyond the scope of the pharmacist and pharmacy technician. Data was considered statistically significant if the p-value <0.05. Px represents data collected from the pharmacist survey, and Tx represents data collected from the pharmacy technician survey.

RESULT

This study assessed the current practices of community pharmacies in Indonesia in managing common ailments, focusing on the roles of pharmacists and pharmacy technicians. To our knowledge, this is the inaugural study that examines the perceptions of Indonesian pharmacists and pharmacy technicians on their existing pharmacy-based services for managing common ailments.

In total, 229 pharmacists attended the IAI seminar; 10 declined participation, leaving 219 questionnaires distributed. Of those distributed, 190 were returned. We exclude ten incomplete questionnaires. The response rate was 78.6% (180/229). On the other hand, 214 pharmacy technicians attended the PAFI seminar, and eight declined to participate, leaving 208 questionnaires distributed. Of those distributed, 149 were returned. We exclude nine incomplete questionnaires. The response rate was 67.4% (140/208). This study achieved response rates of 78.6% for pharmacists and 67.4% for pharmacy technicians, which were higher, thus minimising the bias.

The demographic profiles of 180 pharmacist and 140 pharmacy technician respondents are summarised in Table 1. Most pharmacist and pharmacy technician respondents were female (Px=160/180, 88.9%; Tx=118/140, 84.3%), under the age of 30 years for pharmacists (89/180, 49.4%), and under the age of 30 years for pharmacy technicians (125/140, 89.2%). Most pharmacists held an Apothecary degree (175/180, 97.2%) and a diploma degree (106/140, 75.7%) for the pharmacy technician respondents.

The demographic data revealed a significant proportion of female respondents among both pharmacists and pharmacy technicians. The patterns of pharmacy ownership and types of pharmacies observed in this study aligned with those reported in earlier research conducted in Jakarta, Indonesia (Apriansyah, 2017).

Table 1. Demographic profiles of the respondents Pharmacists (n=180) Pharmacy Technicians (n=140)

Characteristics	**n (%)**	**Characteristics**	**n (%)**
Gender		**Gender**	
Male	20 (11.1)	Male	22 (15.7)
Female	160 (88.9)	Female	118 (84.3)
Age (years)		**Age (years)**	
21-30	89 (49.4)	16-20	12 (8.5)
31-40	76 (42.2)	21-30	113 (80.7)

41->50	15 (8.4)	31->40	15 (10.8)
Years of practice		**Years of practice**	
<2-5 years	91 (50.5)	<2-5 years	100 (71.4)
6-10 years	47 (26.1)	6-10 years	32 (22.8)
11- >15 years	42 (23.3)	11- >15 years	8 (5.8)
Level of education		**Level of education**	
Apothecary Degree	175 (97.2)	Pharmacy assistant school	34 (24.3)
Master's Degree	5 (2.8)	Diploma	106 (75.7)
Received additional remuneration		**Received additional remuneration**	
Yes	140 (77.8)	Yes	125 (89.3)
No	40 (22.2)	No	15 (10.7)
Type of additional remuneration (n=140)		**Type of additional remuneration**	
Dispensing fees	15 (8.3)	Dispensing fees	23 (16.4)
Consultations fees	9 (5.0)	Incentives (pharmacist only medicines)	15 (10.7)
Incentives (pharmacist- only medicines)	11 (6.1)	Religious holiday allowance	102 (72.9)
Gross turnover profit	25 (13.9)		
Religious holiday allowance	120 (66.7)		

The majority of pharmacists (n=180) and pharmacy technicians (n=140) reported receiving religious holiday allowances, with pharmacists at 66.7% (120 out of 180) and technicians at 72.9% (102 out of 140). In contrast, only a small fraction received dispensing fees, at 8.3% (15 out of 180) for pharmacists and 16.4% (23 out of 140) for technicians. Additionally, incentives for selling pharmacist-only medicines were reported by 6.1% (11 out of 180) of pharmacists and 10.7% (15 out of 140) of pharmacy technicians. The study did not clarify whether the imposition of consultation fees influenced pharmacists' provision of common ailment services. Several studies showed that charging a consultation fee is integral to offering professional pharmacy services and enhances pharmacists' abilities to deliver these services (Cassie et al., 2019; Newlands et al., 2018; Perrot et al., 2019; Yuswar et al., 2021). Nevertheless, the present study's findings indicate that pharmacists and pharmacy technicians in Indonesia generally opposed consultation fees for these services. According to Rosenthal et al. (2010), the primary obstacle to delivering professional pharmacy services lies in the "pharmacists' psyche and culture." (Rosenthal et al., 2010). Research conducted in Ethiopia has highlighted various factors affecting pharmacists' consultation roles, including their attitudes, knowledge, communication skills, remuneration, pharmacy working environment, and consumer demands (Ayele et al., 2018; Mengistu et al., 2019).

According to Table 2, independent pharmacies represented the largest share of community pharmacies where the respondents worked, with 62.2% (112 out of 180) pharmacists and 67.1% (94 out of 140) pharmacy technicians. Additionally, a majority of pharmacists (60.0%, 108 out of 180) and pharmacy technicians (64.3%, 90 out of 140) were employed in pharmacies owned by non-pharmacists.

The weekly number of consumers visiting pharmacies varied from fewer than 450 to more than 550. Over half of the pharmacists (64.4%, 116 out of 180) reported that more than 60 weekly consumers sought help for common ailments (Table 2). Conversely, more than half of the pharmacy technicians (59.3%, 83 out of 140) indicated that they worked in pharmacies with fewer than 450 visitors per week, among which over 60 were seeking advice for common ailments.

Table 3 shows a range of common ailments listed by the Indonesian Ministry of Health, which may require OTC or pharmacist-only medicines in a community pharmacy (Directorate General of Pharmacy and Medical Devices, 2008). Respondent groups were asked to indicate how they perceived managing each common ailment in a community pharmacy or if it was beyond the scope of both groups.

Out of the 13 ailments surveyed, 11 revealed significant differences in the perceptions of pharmacists and pharmacy technicians, influenced by their respective education and experience.

Table 2. Pharmacy characteristics of the respondents

Pharmacists (n=180)		**Pharmacy Technicians (n=140)**	
Characteristics	**n (%)**	**Characteristics**	**n (%)**
Type of pharmacy		**Type of pharmacy**	
Independent	112 (62.2)	Independent	94 (67.1)
Franchise	28 (15.5)	Franchise	19 (13.6)
Co-located with medical practice	40 (22.2)	Co-located with a doctor's practice	27 (19.3)
Pharmacy owner		**Pharmacy owner**	
Pharmacist	72 (40.0)	Pharmacist	51 (36.4)
Non-pharmacist	108 (60.0)	Non-pharmacist	89 (63.6)
Room for consultation		**Room for consultation**	
Yes	150 (83.3)	Yes	107 (76.4)
No	30 (16.7)	No	33 (23.6)
Average consumers per week		**Average consumers per week**	
<450	116 (64.4)	<450	83 (59.3)
451- >550	64 (35.6)	451- >550	57 (40.7)

Common ailments or minor ailments are commonly classified as non-complicated and may be managed within a community pharmacy setting. Our findings suggest that pharmacists' perceived to manage certain ailments was much broader. There appears to be a disagreement between pharmacists' and pharmacy technicians' perceptions of their practice and those of each other in managing common ailments in community pharmacies. This highlights that the pharmacists' and pharmacy technicians' perspectives or attitudes toward a common ailment may differ. Inadequate training and knowledge among pharmacy technicians may pose a problem, thus raising safety concerns (Verma et al., 2018). The research found that discordance was evident where pharmacy technicians' perceptions of their scope were wider than that ascribed by community pharmacists (Mizranita et al., 2023; Mizranita et al., 2021; Mizranita et al., 2022). Acute pain was an ailment perceived as limited to a pharmacist's scope. Ailments such as dandruff, constipation and mild headache were perceived to be within the scope of a pharmacy technician.

These perceptions underscore the importance of clear role definitions and training for both groups to ensure they practice within their competencies and provide optimal patient care. The significant p-values indicate that these differences are statistically meaningful and should be considered in policy and training program development.

The varying perspectives of pharmacists and pharmacy technicians highlighted in their survey responses can be attributed to their distinct scopes of practice, training, and levels of expertise. These trends are consistent with findings from numerous international studies (Chamberlain et al., 2020; Kellar et al., 2021; Yusuff et al., 2021). Many individuals might opt to visit a pharmacy rather than a general practice for ailments such as coughs, hay fever, and minor eye inflammation or irritation (Jack Charles Collins & Jane Moles, 2019).

Table 3. Common ailment management based on perceived experience as reported by the respondents

Minor ailment	**Pharmacists (n=180)**	**Pharmacy Technicians (n=140)**	**P-value****

	n (%)		
Acne			**<0.001***
Pharmacy technician scope	136 (75.6)	132 (94.3)	
Pharmacist scope	41 (22.7)	7 (5.0)	
Beyond the scope	3 (1.7)	1 (0.7)	
Acute pain			**<0.001**
Pharmacy technician scope	38 (21.1)	59 (42.1)	
Pharmacist scope	130 (72.2)	71 (50.7)	
Beyond the scope	12 (6.7)	10 (7.1)	
Constipation			**0.001**
Pharmacy technician scope	143 (79.4)	128 (91.4)	
Pharmacist scope	36 (20.0)	10 (7.1)	
Beyond the scope	1 (0.6)	2 (1.5)	
Cough and cold symptoms			**0.001**
Pharmacy technician scope	139 (77.2)	127 (90.7)	
Pharmacist scope	41 (22.8)	11 (7.8)	
Beyond the scope	0 (0.0)	2 (1.5)	
Dandruff			0.114
Pharmacy technician scope	140 (77.8)	121 (86.4)	
Pharmacist scope	35 (19.4)	15 (10.7)	
Beyond the scope	5 (2.8)	4 (2.9)	
Dermatitis			**<0.001**
Pharmacy technician scope	44 (24.4)	82 (58.6)	
Pharmacist scope	134 (74.4)	51 (36.4)	
Beyond the scope	2 (1.2)	7 (5.0)	
Diarrhoea			**<0.001**
Pharmacy technician scope	77 (42.8)	117 (83.6)	
Pharmacist scope	100 (55.6)	21 (15.0)	
Beyond the scope	3 (1.6)	2 (1.4)	
Eczema			**<0.001**
Pharmacy technician scope	53 (29.4)	85 (60.7)	
Pharmacist scope	121 (67.2)	45 (32.1)	
Beyond the scope	6 (3.4)	10 (7.2)	
Indigestion/heartburn			**<0.001**
Pharmacy technician scope	36 (20.0)	68 (48.6)	
Pharmacist scope	134 (74.4)	60 (42.8)	
Beyond the scope	10 (5.6)	12 (8.6)	
Mild headache			**0.023**
Pharmacy technician scope	156 (86.7)	133 (95.0)	
Pharmacist scope	22 (12.2)	6 (4.3)	
Beyond the scope	2 (1.1)	1 (0.7)	
Minor burns			**0.008**

Pharmacy technician scope	121 (67.2)	111 (79.3)	
Pharmacist scope	55 (30.6)	25 (17.9)	
Beyond the scope	4 (2.2)	4 (2.8)	
Wounds			**<0.001**
Pharmacy technician scope	68 (37.8)	87 (62.1)	
Pharmacist scope	104 (57.8)	38 (27.1)	
Beyond the scope	8 (4.4)	15 (10.8)	
Warts			0.721
Pharmacy technician scope	114 (63.3)	91 (65.0)	
Pharmacist scope	51 (28.3)	40 (28.6)	
Beyond the scope	15 (8.4)	9 (6.4)	

Figure 1 shows various clinical scenarios in which pharmacists were asked to evaluate the likelihood of referring a patient with common ailments to another healthcare professional (e.g., doctor, nurse, physiotherapist, etc.). Approximately half of the pharmacists surveyed hesitated to refer a patient to another healthcare professional based solely on assessing the patient's signs and symptoms upon their initial presentation. However, if the patient exhibited recurring symptoms, more than 63.9% (115 out of 180) of pharmacists indicated a higher likelihood of referral. Additionally, 75.6% (136 out of 180) of pharmacists stated they would refer patients to another healthcare professional if their symptoms had not improved following prior treatment.

The majority of pharmacists fall into the "Sometimes" and "Rarely" categories, emphasising their role in managing common ailments independently but recognising the need for referrals in specific cases. This balance ensures that patients receive appropriate care without unnecessary referrals. Further, the frequency of referrals may reflect the training and confidence of pharmacists in managing various health conditions. Those who refer more frequently might feel less confident in managing certain ailments or might encounter more complex cases that require specialist attention. Understanding these referral patterns can help design continuing education programs for pharmacists, ensuring they have the necessary skills and confidence to independently manage a broader range of ailments.

Despite the fact that managing common ailments was a primary activity for the pharmacist and pharmacy technician respondents in this study, the majority of them (60.0% of pharmacists, 108 out of 180; and 94.3% of pharmacy technicians, 132 out of 140) believed that a consultation fee should not be imposed for minor ailments management beyond the cost of the medication itself (Table 4).

Consultation Fee

The data from Table 4 reveals a significant difference in opinion between pharmacists and pharmacy technicians regarding whether a consultation fee should be charged for common ailments. Of 180 pharmacists, 40.0% (n=72) believe a consultation fee should be charged, whereas only 5.7% (n=8 out of 140) of pharmacy technicians share this view. This suggests that pharmacists, who might have more responsibility and insight into the value of their professional consultation, are more inclined to see the necessity of a fee. Conversely, a substantial majority of pharmacy technicians (94.3%, or 132 out of 140) believe that no consultation fee should be charged, reflecting perhaps a perspective focused more on accessibility and the role of the pharmacy as a free resource for common ailments.

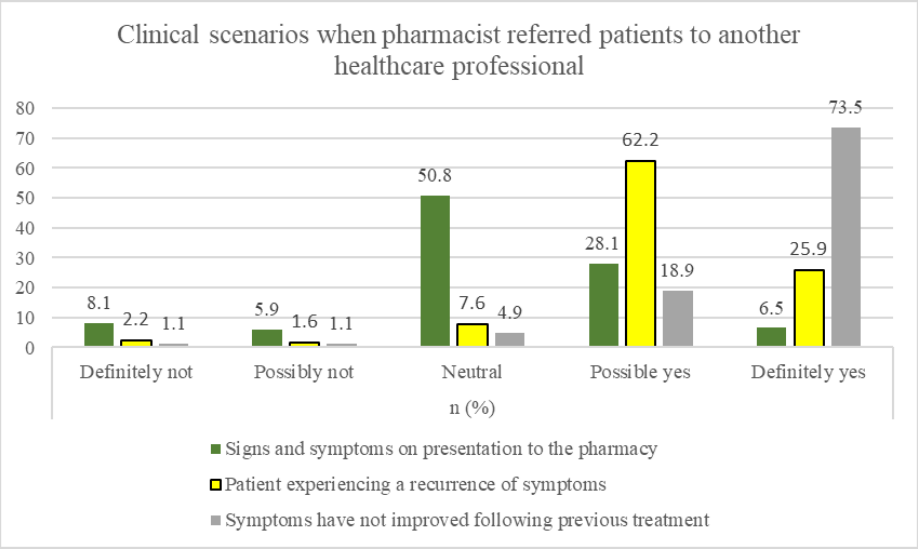

Figure 1. Percentage (%) distribution of instances when pharmacists referred patients to other healthcare professionals, based on responses from pharmacist respondents (n=180)

Table 4 indicates a clear divergence between pharmacists and pharmacy technicians in their views on charging consultation fees for common ailments. Pharmacists, more inclined to support a fee, value the professional service provided, whereas pharmacy technicians prioritise keeping services free. Both groups, however, largely agree that if a fee is to be charged, the patient should be the one to pay, though pharmacists also see a role for government and insurance. This data highlights important considerations for policymakers and pharmacy management in designing fee structures and payment responsibilities in the context of consultation services for common ailments.

Appropriate Fee Range

Among those who support charging a fee, there is again a difference in opinions on the most appropriate amount. The most common fee range for pharmacists is 5000-10000 ($0.50 to $1), preferred by 44.1% (34 out of 77) of respondents. This fee range is considered moderate and likely reflects a balance between compensating professional time and maintaining patient affordability. Pharmacy technicians who support charging a fee (8 respondents) show varied preferences, but the most favoured fee range is also 5000-10000 ($0.50 to $1), preferred by 37.5% (3 out of 8). Interestingly, 32.5% (25 out of 77) of pharmacists who support charging a fee believe it should be less than 5000 (<$0.50), indicating some consideration for keeping the costs very low. In contrast, a quarter (25%) of the pharmacy technicians also support a fee of less than 5000 (<$0.50).

Table 4. Pharmacist and pharmacy technician responses to standard procedure for minor ailments at pharmacy

	Reported by the pharmacist	Reported by the pharmacy technician
	n (%)	
Do you think a consultation fee should be charged?	**(n=180)**	**(n=140)**
Yes	72 (40.0)	8 (5.7)
No	108 (60.0)	132 (94.3)
The most appropriate fee?	**(n=77)**	**(n=8)**
<5000 (< $50c)	25 (32.5)	2 (25.0)
5000-10000 ($50c - $1)	34 (44.1)	3 (37.5)
11000-15000 ($1 – 1.5)	11 (4.3)	2 (25.0)

16000-20000 ($1.6 - 2)	2 (2.6)	0 (0.0)
>20000 (> $2)	5 (6.5)	1 (12.5)
Who should pay?	**(n=75)**	**(n=8)**
Patient	48 (64.0)	6 (75.0)
Government	8 (10.6)	2 (25.0)
Health insurance	14 (18.7)	0 (0.0)
Pharmacy company	3 (4.0)	0 (0.0)
Other	2 (2.7)	0 (0.0)

Responsibility for Payment

When it comes to who should bear the cost of the consultation fee, the majority opinion among both groups is that the patient should pay. Specifically, 64% (48 out of 75) of pharmacists and 75% (6 out of 8) of pharmacy technicians hold this view. However, there is a notable percentage of pharmacists who think that either the government (10.6%, or 8 out of 75) or health insurance (18.7%, or 14 out of 75) should cover the cost, reflecting a belief in shared responsibility or an insurance-based model for covering health expenses. Only a small fraction of pharmacists (4%, or 3 out of 75) believe that the pharmacy company should pay, which might be due to concerns about financial sustainability. In contrast, pharmacy technicians do not consider health insurance or pharmacy companies as responsible for the payment, suggesting a more patient-centric approach or reflecting a different understanding of funding structures within healthcare. Overall, the data from this study shows that both professionals play an essential role in managing common ailments in Indonesian community pharmacies. Thus, the urgency to establish a clear scope of practice for each professional is needed, and the pharmacy technicians clearly understand when to refer patients to the pharmacist. Although pharmacy technicians and pharmacists in Indonesia are qualified professionals, pharmacists hold higher qualifications and are responsible for the conduct of the pharmacy; therefore, they should refer to another healthcare professional based on ailments beyond the scope of their practice.

The main limitation of this study relates to self-reported perceptions reported by respondents. Data were based on recall, recollections, and perceptions about managing common ailments in the Indonesian community pharmacy. Therefore, caution should be applied when generalising the outcome.

CONCLUSION

This study underscores the importance of clear role definitions and targeted training for both pharmacists and pharmacy technicians to enhance the management of common ailments. These findings align with international trends and highlight the need for policy and training programs to ensure optimal patient care in community pharmacies. This study provides the first comprehensive insight into Indonesian pharmacists' and pharmacy technicians' perceptions and practices regarding common ailments management, laying the groundwork for future improvements in community pharmacy services. The scope of practice of pharmacists and pharmacy technicians in managing common ailments must be broadly identified. This pattern underscores the importance of pharmacists in the healthcare system and the need for ongoing support and training to optimise their role in patient care.

REFERENCES

Apriansyah, A. (2017). *Kajian pelayanan informasi obat di apotek wilayah kota Tangerang Selatan [Drug information services in the community pharmacies at South Tangerang]* [Bachelor's thesis, Universitas Islam Negeri (UIN) Syarif Hidayatullah]. Jakarta. https://repository.uinjkt.ac.id/dspace/bitstream/123456789/35944/1/AHMAD%20APRIANSYAH-FKIK.pdf

Athiyah, U., Setiawan, C. D., Nugraheni, G., Zairina, E., Utami, W., & Hermansyah, A. (2019). Assessment of pharmacists' knowledge, attitude and practice in chain community pharmacies

towards their current function and performance in Indonesia. *Pharmacy Practice (Granada), 17*(3), 1518-1518. https://doi.org/10.18549/pharmpract.2019.3.1518

Ayele, A. A., Mekuria, A. B., Tegegn, H. G., Gebresillassie, B. M., Mekonnen, A. B., & Erku, D. A. (2018). Management of minor ailments in a community pharmacy setting: Findings from simulated visits and qualitative study in Gondar town, Ethiopia. *PLoS One, 13*(1), e0190583. https://doi.org/10.1371/journal.pone.0190583

Babar, Z. U. (2021). Ten recommendations to improve pharmacy practice in low and middle-income countries (LMICs). *Journal of Pharmaceutical Policy and Practice*, *14*(1), 6. https://doi.org/10.1186/s40545-020-00288-2

Belachew, S. A., Hall, L., Erku, D. A., & Selvey, L. A. (2021). No prescription? No problem: Drivers of non-prescribed sale of antibiotics among community drug retail outlets in low and middle income countries: A systematic review of qualitative studies. *BMC Public Health*, *21*(1), 1056. https://doi.org/10.1186/s12889-021-11163-3

Cassie, H., Duncan, E. M., Gibb, E. A., Power, A., Young, L., Newlands, R., & Watson, M. C. (2019). Qualitative study exploring the key determinants of information gathering to inform the management of over-the-counter (OTC) consultations in community pharmacies. *BMJ Open*, *9*(8), e029937. https://doi.org/10.1136/bmjopen-2019-029937

Chamberlain, R., Huyton, J., & James, D. (2020). Pharmacy Technicians' Roles and Responsibilities in the Community Pharmacy Sector: A Welsh Perspective. *Pharmacy*, *8*(2), 97. https://doi.org/10.3390/pharmacy8020097

Dineen-Griffin, S., Benrimoj, S. I., Rogers, K., Williams, K. A., & Garcia-Cardenas, V. (2020). Cluster randomised controlled trial evaluating the clinical and humanistic impact of a pharmacist-led minor ailment service. *BMJ quality & safety*, bmjqs-2019-010608. https://doi.org/10.1136/bmjqs-2019-010608

Directorate General of Pharmacy and Medical Devices. (2008). *Petunjuk teknis pelaksanaan standar pelayanan kefarmasian di apotek (1027/MENKES/SK/2004) [Technical instructions for implementing pharmaceutical service standards in pharmacies (1027/MENKES/SK/2004)]*. Ministry of Health Republic of Indonesia. http://pio.binfar.kemkes.go.id/PIOPdf/JUKNIS_APOTEK.pdf

Jack Charles Collins, J., & Jane Moles, R. (2019). Management of Respiratory Disorders and the Pharmacist's Role: Cough, Colds, and Sore Throats and Allergies (Including Eyes). *Encyclopedia of Pharmacy Practice and Clinical Pharmacy*, 282-291. https://doi.org/10.1016/B978-0-12-812735-3.00510-0

Kc, B., Khan, T. M., Xuan, W. Y., Alrasheedy, A. A., Mohamed Ibrahim, M. I., & Leggat, P. A. (2020). Travel health-related activities and services provided by community pharmacies in Selangor, Malaysia: A cross-sectional analysis. *Travel Med Infect Dis*, *33*, 101463. https://doi.org/10.1016/j.tmaid.2019.07.019

Kellar, J., Singh, L., Bradley-Ridout, G., Martimianakis, M. A., van der Vleuten, C. P. M., oude Egbrink, M. G. A., & Austin, Z. (2021). How pharmacists perceive their professional identity: A scoping review and discursive analysis. *The International Journal of Pharmacy Practice*, *29*(4), 299-307. https://doi.org/10.1093/ijpp/riab020

Makhlouf, A. M., Mohamed Ibrahim, M. I., Awaisu, A., Vyas, S. K., & Yusuff, K. B. (2021). Determinants of community pharmacists' information gathering and counseling practices during the management of minor ailments. *Saudi Pharm J*, *29*(9), 992-998. https://doi.org/10.1016/j.jsps.2021.07.016

Mengistu, G., Gietnet, K., Amare, F., Sisay, M., Hagos, B., & Misganaw, D. (2019). Self-reported and actual involvement of community pharmacy professionals in the management of childhood diarrhea: A cross-sectional and simulated patient study at two Towns of Eastern Ethiopia. *Clin Med Insights Pediatr*, *13*. https://doi.org/10.1177/1179556519855380

Mizranita, V., Hughes, J. D., Sunderland, B., & Sim, T. F. (2023). Pharmacists and Pharmacy Technicians’ Perceptions of Scopes of Practice Employing Agency Theory in the Management of Minor Ailments in Central Indonesian Community Pharmacies: A Qualitative Study. *Pharmacy*, *11*(5), 132.

Mizranita, V., & Pratisto, E. H. (2015). Statin-associated ocular disorders: the FDA and ADRAC data. *International Journal of Clinical Pharmacy, 37*(5), 844-850. https://doi.org/10.1007/s11096-015-0128-x

Mizranita, V., Sim, T. F., Sunderland, B., Parsons, R., & Hughes, J. D. (2021). The Pharmacists' and pharmacy technicians' scopes of practice in the management of minor ailments at community pharmacies in Indonesia: a cross-sectional study. *Pharmacy Practice (Granada), 19*(2), 2295. https://doi.org/10.18549/PharmPract.2021.2.2295

Mizranita, V., Sunderland, B., Hughes, J. D., & Sim, T. F. (2022). *The management and status of minor ailments in community pharmacies in Central Indonesia: A mixed methods study* [PhD Thesis, Curtin University]. Perth, Western Australia.

Newlands, R. S., Power, A., Young, L., & Watson, M. (2018). Quality improvement of community pharmacy services: A prioritisation exercise. *The International Journal of Pharmacy Practice*, *26*(1), 39-48. https://doi.org/10.1111/ijpp.12354

Perrot, S., Cittée, J., Louis, P., Quentin, B., Robert, C., Milon, J. Y., Bismut, H., & Baumelou, A. (2019). Self-medication in pain management: The state of the art of pharmacists' role for optimal over-the-counter analgesic use. *Eur J Pain*, *23*(10), 1747-1762. https://doi.org/10.1002/ejp.1459

Rosenthal, M., Austin, Z., & Tsuyuki, R. T. (2010). Are Pharmacists the Ultimate Barrier to Pharmacy Practice Change? *Can Pharm J*, *143*(1), 37-42. https://doi.org/10.3821/1913-701X-143.1.37

Shirdel, A., Pourreza, A., Daemi, A., & Ahmadi, B. (2021). Health-promoting services provided in pharmacies: A systematic review. *Journal of education and health promotion*, *10*, 234-234. https://doi.org/10.4103/jehp.jehp_1374_20

Verma, R. K., Paraidathathu, T., Taha, N. A., & Chong, W. W. (2018). Perceptions of the Malaysian general public on community pharmacy-based weight management services. *Journal of Pharmaceutical Policy and Practice, 11*, 17. https://doi.org/10.1186/s40545-018-0146-x

Yong, F. R., Garcia-Cardenas, V., Williams, K. A., & Benrimoj, S. I. (2020). Factors affecting community pharmacist work: A scoping review and thematic synthesis using role theory. *Research in Social and Administrative Pharmacy*, *16*(2), 123-141. https://doi.org/10.1016/j.sapharm.2019.05.001

Yuan, C., Ding, Y., Zhou, K., Huang, Y., & Xi, X. (2019). Clinical outcomes of community pharmacy services: A systematic review and meta-analysis. *Health Soc Care Community*, *27*(5), e567-e587.

Yusuff, K. B., Makhlouf, A. M., & Ibrahim, M. I. (2021). Community pharmacists' management of minor ailments in developing countries: A systematic review of types, recommendations, information gathering and counseling practices. *The International Journal of Clinical Practice*, *75*(10), e14424. https://doi.org/10.1111/ijcp.14424

Yuswar, M. A., Untari, E. K., & Robiyanto, R. (2021). Traditional medicine pattern for self-medication in Temajuk Village, a 3T (frontier, outermost, and underdeveloped) region in West Kalimantan. In *Proceeding of Mulawarman Pharmaceuticals Conferences* (Vol. 13, pp. 269-274). http://prosiding.farmasi.unmul.ac.id/index.php/mpc/article/view/477