

Pharmacy practices and services in Myanmar: How stakeholders perceived and expect them?

Saw Thi Dar, Nattiya Kapol, Sineenart Krichanchai, and Panoopat Poompruek*

Faculty of Pharmacy, Silpakorn University, Nakhon Pathom, 73000, Thailand

ABSTRACT

***Corresponding author:**
Panoopat Poompruek
poompruek_p@su.ac.th

Received: 20 June 2023

Revised: 27 June 2023

Accepted: 30 June 2023

Published: 21 December 2023

Citation:

Dar, S. T., Kapol, N., Krichanchai, S., and Poompruek, P. (2023). Pharmacy practices and services in Myanmar: How stakeholders perceived and expect them? *Science, Engineering and Health Studies*, 17, 23050011.

Guidelines for Good Pharmacy Practice (GPP) were established by the Republic of the Union of Myanmar in 2017, aiming to implement them in neighborhood retail pharmacies by 2020. GPP encompasses a diverse range of stakeholders, and establishing mutual understanding among them is pivotal for the program's success. The purpose of this study was to explore stakeholders' perspectives on pharmacy functions and their valuation of GPP. Employing a qualitative approach, this study assessed stakeholders' opinions and expectations to depict current pharmacy services and practices. From July to September 2018, the study was carried out in three selected regions in Upper Myanmar. Sixty-two informants from various stakeholder groups participated in one-on-one interviews, and content analysis was used to examine their responses. The findings revealed four key characteristics shaping the pharmacy landscape: (a) shared socially significant values between pharmacies and the general public, (b) diverse opinions among stakeholders regarding the effectiveness of pharmacy practices and services, (c) personal experiences of stakeholders with drug-related issues, and (d) a preference among stakeholders for a reductionist approach rather than a holistic one for improving pharmacy services. Overall, the study emphasized the varying and sometimes conflicting opinions among stakeholders, posing challenges to the rapid and successful adoption of GPP. Therefore, the establishment of a comprehensive understanding of the GPP is deemed crucial, specifically for the involved stakeholders.

Keywords: pharmacy practices; pharmacy services; good pharmacy practice guidelines

1. INTRODUCTION

Community pharmacies, sometimes known as drugstores, are locations where the general population can purchase medications for either self-medication or to fill prescriptions. In many developing countries, they mostly take the dispensing, labeling, and compounding roles. However, in some developed countries, the scope of pharmacy practices has expanded beyond conventional methods in order to serve the public with cost-effective

pharmaceutical services and high-quality pharmaceutical care (Wiedenmayer et al., 2006). Nevertheless, the ease in accessibility to community pharmacies and the self-medication behavior of people might pose risks associated with drug quality and rational use (Stenson et al., 2001; Akinyandenu and Akinyandenu, 2014), inappropriate use, and frequent use of over-the-counter (OTC) (Shrotri et al., 2011). As a result, it is essential to ensure that the services offered to customers are of the right quality, accurately dispensed, and compliant with the requirements for

consumer safety (Rutter, 2015). The International Pharmaceutical Federation (FIP) and the World Health Organization (WHO) recommended that pharmacists should be responsible for handling the problems of medication safety. The good pharmacy practice (GPP) guidelines, based on the principles of pharmaceutical care, are therefore, designed to offer the best care for the benefit of those who use pharmacists' services (World Health Organization, 2011). Various nations, including Ireland, the United Arab Emirates (UAE), South Africa, Taiwan, Singapore, Thailand, Nepal, and India have developed their respective GPP guidelines as fundamental standards for enhancing existing conditions and ensuring service quality within community pharmacy settings. The guidelines align with the framework of FIP/WHO recommendations and their respective national pharmaceutical associations. As a result, the pressures of globalization on pharmacy practice may have forced Myanmar to create its own GPP guidelines.

The Republic of the Union of Myanmar developed GPP guidelines for community pharmacies in 2017, which have yet to be proposed to a legislature for enactment as a supplement to the National Drug Law and Notification No. 6/93, announced by the Ministry of Health. The government had a vision to implement this GPP guideline in all community pharmacies by 2020. The existing National Drug Law, which has governed pharmaceuticals in Myanmar since 1992, permitted individuals working in pharmacies to undertake retailing roles. Unfortunately, at that time, such lay people generally had minimal education (World Intellectual Property Organization, 1992). Myanmar lacked qualified pharmacists, and the development of pharmacy education was in its early stages. Presently, the estimated number of graduated pharmacists is nearly 4,000. However, there are approximately 10,000 retail pharmacies nationwide in the private health service sector. Some pharmacies operate all day and night while others operate for specific hours (Myint et al., 2015). Consequently, the number of available pharmacists falls short of meeting the managerial needs of all pharmacies. Hence, Myanmar's existing GPP standards still do not mandate the presence of a pharmacist in every drugstore. The vast majority of the local retail pharmacies in Myanmar employ individuals without pharmacy qualifications. In many regions, sales staff often take on the role of pharmacists, primarily dispensing prescribed medications and selling OTC drugs to the public. Most of them have little or no experience with suitable pharmaceutical training. Consequently, pharmacy practices in Myanmar vary significantly. However, it is still true that pharmacies serve as the primary point of contact for medicine access, especially for the majority of low-income people, particularly in rural areas (Phyu, 2016).

Consequently, there are likely to be great challenges toward the establishment of GPP in the country due to many reasons, such as inadequate professional resources, insufficiency of properly trained personnel for pharmacy, unattractive benefits for pharmacists in pharmacies, the embryonic stage of pharmacy association, the constitutionalizing stage of the Myanmar Pharmacy Council and its law, and lack of knowledge on studies pertaining to the pharmacy practice. The lack of

evidence about past practices obscures and varies the present conditions which makes it challenging to detect, review, and revise the practice. Although there has been very little research on the pharmacy practice of sellers in specified local areas, none of these have been published as a handbook or as any form of baseline data for pharmacy practices. GPP requires the involvement and participation of various stakeholders including patients, patients' attendants, customers, doctors, nurses, pharmacists, administrators, pharmacy owners, and pharmaceutical marketing staff. However, there has been no research examining the perceptions and expectations of these stakeholders toward the responsibilities of pharmacies in Myanmar which influences current pharmacy practices. Therefore, in Myanmar, it is important to understand the attitudes and perspectives toward the importance of community pharmacies and their services and practices for the public. The present study seeks to understand the current state of pharmacy services and practices by examining the various views and expectations of multiple stakeholders.

2. MATERIALS AND METHODS

2.1 Study design

A qualitative approach with an in-depth frame of interview guidelines was employed in this study. The purpose was to obtain accounts from interviewees that would portray the current pharmacy services in three chosen districts of Mandalay, Myanmar, from July to September 2018. The questionnaires embodied the guidelines and procedure of this study. The ethical issues were reviewed and accepted by the Ethics Review Committee from the Department of Medical Research within the Ministry of Health and Sports of Myanmar (ERC clearance number–Ethics/DMR/2018/098).

2.2 Study area

The study was carried out in three major townships of Mandalay: Pyin Oo Lwin (area I), Chan Mya Tharzi (area II), and Kyaukse (area III). These research locations were chosen due to their fair infrastructural development and higher population density covering dry zones, hilly, and urban regions. One of the selected townships, Chan Mya Tharzi, is located in the south-central area of Mandalay with a population of 283,781 in 2014 with 100% urbanization. Pyin Oo Lwin, a picturesque highland resort in the Mandalay division, is located 42 miles east of Mandalay. It had an estimated population of approximately 255,000 with 71.9% ruralization and 28.1% urbanization in 2014. Kyaukse is one of the townships of Mandalay which is approximately 26 miles outside the city. Its total population was 741,071 in 2014 (Department of Population, Ministry of Labor, Immigration and Population, 2017a, 2017b, 2017c).

2.3 Sample size and sampling method

A total of 62 informants from various stakeholder groups were gathered through the purposive sampling technique. This group comprised 18 participants from Area I, 32 participants from Area II, and 12 participants from Area III, respectively, including patients, caregivers, customers, doctors, nurses, pharmacists, administrators,

pharmacy owners, and pharmaceutical marketing staffs. All participants agreed to participate in the study (Table 1). Participants were questioned to elicit their varied perspectives and attitudes concerning current pharmacy services and ways to improve the current situation of pharmacy practice in Myanmar. Drugstore owners and healthcare providers of different positions with varying work experience from private or public hospitals and academic institutions were recruited. Other recruited participants included patients' attendants who acted as caregivers, customers and patients from public hospitals, pharmacies, and private nonprofit clinics at the time of their visits to respective places. To protect the privacy of informants, those participants who gave oral consent were interviewed anonymously. All the stakeholders were recruited based on their own willingness to participate in the study, without inducement from the researcher. Thus, the findings would cover a wide range of people and their diverse knowledge and perceptions. Many pharmacies and stakeholders were reluctant to participate in the interview: some said that they were too busy to attend, and others said they were not interested in having a conversation or declined without giving a reason. Interviews were conducted by the authors and were documented in writing for people who did not consent to have their accounts recorded by phone. The participants were informed that participation was voluntary and they could withdraw from the study at any stage.

2.4 Study tool

Interviews were conducted using in-depth interview criteria to gather the data. The themes were constructed based on the findings of previous surveys about pharmacy practices. Each interview lasted between 20 and 30 minutes and was conducted in a relaxed and non-threatening setting to make the participants feel comfortable and be more likely to open up. Permission to record was requested. If consent was not given, field notes were taken on paper. All recorded data was kept for one year before being destroyed.

3. RESULTS

The demographic characteristics of 62 participants are summarized in Table 1. Over half (53%) of the chosen participants were females, while 47% were males. Participants were from the informal and formal health sectors, and their ages ranged from 18 to 62 years with a variety of knowledge levels, work experiences, education, and socioeconomic backgrounds. The interview guidelines focused on four main components to reflect the existing state of pharmacy services and what the stakeholders hoped to achieve in terms of better conditions. They were (i) the role of pharmacies in Myanmar; (ii) current pharmacy practices, including advantages and disadvantages; (iii) the stakeholders' experiences with drug-related problems in pharmacies; and (iv) their expectations for ways to improve current pharmacy practices. Thematic content analysis was used to analyze the data and identify key topics and themes.

Table 1. Demographic characteristics of participants (n = 62)

Characteristics	Frequency
Age (years)	
18–30	7
31–40	21
> 40	34
Gender	
Male	29
Female	33
Groups of stakeholders	
Patient	10
Patient's attendant	12
Customer	5
Doctor	9
Nurse	2
Pharmacist	6
Administrator	3
Pharmacy owner	13
Pharmaceutical marketing staff	2
Educational status	
Unschooling	7
Primary school level	6
Middle school level	4
High school level	5
University level	40
Experiences (years)	
Working in Pharmacy store and private company	
1–5 years	3
6–10 years	6
>10 years	5
Working as government staff	
1–5 years	6
6–10 years	9
>10 years	
Location	
Area I	18
Area II	32
Area III	12

Theme 1: Perceptions toward pharmacies

In the first theme, the roles of pharmacies from the stakeholders' perspectives were examined. Their views on the function of pharmacies in Myanmar differed. Most of the customers, pharmacy owners, and pharmaceutical companies considered pharmacies to provide positive contributions, such as *mutual respect* (win-win negotiation), while many administrators and professionals believed that most pharmacies were operating as businesses for profit.

a) Win-win negotiation

Many clients, patients, and caregivers found pharmacies convenient because they were easy to access, had a wide selection of medicines and saved them time. The interviewees expressed the following sentiments:

"We do not need to waste our time for minor symptoms. There is no need to go clinics, as these days we have lots of choices from the increasing number of drug stores." (patient attendant, housewife 1, area I)



"I often buy from drug stores as the staff are kind and have good communication skills. The many drug stores in residential quarters provide easy access to medicine. We can get our medicines at cheap prices without taking up much time." (patient attendant, worker 1, area I)

"From my point of view, drug stores are places where we can buy our medication easily at low prices. If we are not satisfied with their service or prices, we have lots of other drug stores from which to choose." (customer 1, area III)

In addition to the aforementioned advantages, pharmacies were regarded as essential sources of drug information. They were more economical for the majority of people in rural areas as well as for those of low economic status:

"We live in a village where there is no drug store within 12 miles and it is difficult to access medicines. Therefore, drug stores are important to access medicines in our area. We face difficulties when we have health problems." (patient attendant, farmer 1, area I)

"Sometimes drug stores are useful to help me relieve my symptoms but not always. As we are low-income people, we cannot always afford to see a doctor. Therefore, we rely on the nearest drug stores." (patient attendant, housewife 5, area I)

Additionally, it was observed that people relied on pharmacies differently between rural and urban locations. In urban and suburban areas, people went to private clinics or hospitals first to have their illnesses treated, and they used pharmacies for health promotion, prevention, and prescription filling. Some translated statements from urban areas are as follows:

"We normally buy medicines for a cough or runny nose. I have hypertension, so I used to go see a doctor and get free medicine from a social welfare private clinic." (patient 1, area II)

The results varied in rural areas because people there found it difficult to see a doctor or go to a hospital due to their socioeconomic status. As a result, pharmacies in rural areas often serve as primary care providers:

"I think the existence of drug stores is good for the public to get their medicines. People with minor symptoms do not need to go to a clinic or hospital. They can get their medicines in drug stores, so it is economic for low-income people." (patient attendant, farmer 2, area I)

"They can give pack medicines for our symptoms. They are cheap! My daily income is not regular. How could I go to a clinic every time I needed to? Therefore, we rely on drug stores." (patients 2, area II)

Many pharmacy owners' points of view were that pharmacies fulfill the needs of patients, provide people with good services, and help them solve their health problems in an economical way:

"Normally people who do not dare to buy medicines from hospitals, buy medicines from drug stores. For this purpose, I opened this drug store." (owner 1, area III)

"I would like to help people who need their medication, especially those people who are poor and

cannot afford to go clinics. Drug stores are places to get medication easily, right?" (owner 2, area III)

"The people here mostly inhabit rural areas. They can buy their medication course day by day according to their wages." (owner 3, area III)

However, several owners believed that the pharmacies were competing for respect and notoriety. Some owners admitted that their pharmacies were run for business reasons. They voiced the following concerns:

"The role of drug stores should be in a unique position, standing with dignity. Now we survive among unregistered drug stores. Our roles are lost and it makes us lower our dignity to run the drug stores." (owner 2, area I)

"For me, this is a normal business to make money." (owner 2, area II)

"We are running this pharmacy for our family business." (owner 3, area II)

The staff from pharmaceutical companies also identified the importance of the role of pharmacies in Myanmar as their business partners:

"Drug stores and pharmaceutical companies work in partnership. They are channels for distribution of company products." (company staff 1, area II)

b) Running as a business type

While some participants from administrator sites and the healthcare industry felt that pharmacies played a crucial role in making health commodities available to the general public, most held different opinions. They remarked that most of the pharmacies were operating purely as business for profit without professional ethics, and that they do not adhere to the rules. Therefore, most participants expressed their perceptions toward pharmacy businesses negatively:

"The pharmacies in Myanmar are running as businesses. I cannot say exactly what their role is!" (nurse 2, area II)

"The pharmacies in Myanmar are just like shops for buying commodities." (doctor 1, area II)

Theme 2: Social construction of definitions on quality

Numerous benefits and drawbacks were observed by the stakeholders on current pharmacy practice, with each having their own definition based on the type of pharmacies, services, procedures, medications, and staff. They defined them in different ways based on their experiences and culture.

a) Construction by laypeople

They defined the quality of pharmacies as either good or terrible based on their limited encounters. They considered concrete elements, like price, cleanliness, social interactions, and availability of drugs they sought. Some of the positive sentiments regarding pharmacies are given below:

"Most of the drug stores are neat and tidy. Few drug stores have well-trained staff who can give complete information on the drugs." (patient attendant, student, area I)

"They can explain the products very well to me. They suggest which product is better to use. I like the current system." (patient 3, area II)

"We prefer drug stores with communicative staffs. We would like to receive information and assistance on how to take these medicines. We want that kind of drug store." (patient 4, area II)

The following are some of the negative sentiments regarding pharmacies:

"I have seen dust in the drug stores. I don't like it. They do not keep their medicines in a clean way. Some drug sellers are not skilled persons." (patient attendant, housewife 5, area I)

"Sometimes, when we ask for medicine from the drug store, they do not provide any information about the medicine or how to take it." (patient 2, area II)

"Their weak point is that they cannot provide a good service when they have a large number of customers. At that time, they also become impatient." (patient 7, area II)

b) Construction by pharmacy owners

Pharmacy owners also perceived that they were following good practices, for they were helping people to get medicines and filling the gaps for other people, especially in rural areas. They claimed that they tried to cater to the needs of patients and customers. The interviewees expressed the following sentiments:

"Pharmacies are places where we can deliver medicines to patients based on their needs." (owner 1, area I)

"I think the practice of pharmacy is also related to selling borderline products. We sell these products because of customer demand and with the prescriber's instructions. We don't want to sell illegal products. We have lots of competition. If we do not sell, we can lose our clients." (seller, area I)

However, the proprietors acknowledged that there were drawbacks in pharmacy practices such as selling non-registered pharmaceuticals, driven by customer demand, despite knowing that this was against the law. They also claimed that they tried to sell legal products as much as possible. Unfortunately, factors like client needs, market trends, and business considerations compelled them to offer unlawful goods. Therefore, they highlighted that customer behavior likely impacted their practices:

"The disadvantage of the practice is that we cannot give the generic drugs to patients. People insist on medicines that are identical to their old packages or prescribed medicines. We cannot explain if these products are running out of stock." (owner 1, area I)

"Many drug stores sell mixed pill packs because of customers' demands. If we ever try to explain the side effects of the medicines, people do not listen to us. If we do not sell mixed pills, the buyers blame me, and they think I do not know anything about medicines. So even though we don't want to sell illegal or packed medicines, we still sell because of patient demand." (owner 3, area III)

c) Construction by company staff and administrators

Few stakeholders in this group agreed that pharmacies assist people in getting their medications:

"Some drug stores have experienced persons considered experts. They can give all information on drugs, like pharmacists, because they have a lot of experience from their practices and regularly deal with customers, gaining trust from the people." (company staff 1, area II)

However, the majority of administrators and professionals perceived the current pharmacy practices in Myanmar less optimistically regarding the pros and cons of pharmacy practices:

"Most of the pharmacies are incompetent. Sometimes they sell Prescription Only Medicines (POMs) freely and give mixed pills without prescription." (administrator 2, area II)

"There are not so many good things in current practices because they are run by businessmen with business minds. They do not give pharmaceutical care to customers." (academic pharmacist 1, area II)

"They do not take responsibility or accountability for their faults." (doctor 5, area II)

Theme 3: Social constructions of drug related problems (DRPs) based on experiences

The perceptions toward DRPs among individuals could be categorized into three groups. The majority of the first group (38.7%) stated unequivocally that they had no prior experience with DRPs:

"I have never experienced drug problems." (patient attendant, housewife 5, area I)

"No. I have never experienced a drug allergy, or even heard about drug problems in others." (customer 2, area III)

"I haven't experienced or heard about drug-related problems caused by medication errors or dispensing errors. We always check the medicines and prescription letters." (owner I, area I)

The second group (22.6%) expressed that they would not experience DRPs because they used less potent medicines that they were also more familiar with. The public believe that drugs are used to treat illnesses and promote health, so they assume these drugs do not harm the body. Similarly, pharmacy owners thought that the medications they were selling were prescribed drugs or filled prescriptions that had been authorized by the government. This meant that the quality of the products was already guaranteed by the government, and therefore they did not need to be concerned about who dispensed the medicines:

"We take medicines for minor symptoms, so we don't have drug problems." (patient attendant, housewife 1, area I)

"The medicines that we take are neither potent or strong, so we don't have drug problems." (patient attendant, housewife 2, area I)

"We use usual household drugs and traditional medicines, so we are confident that nothing bad will happen." (patient attendant, housewife 3, area I)

"No, I don't have any experience nor heard about DRPs. We always sell the OTC medicines and inform customers how to take these. We sell mostly analgesics, multi-vitamins and anti-flu medicines." (owner 2, area I)



“This will not happen because we sell according to the prescription letter or based on the empty strips brought by patients.” (seller, area I)

The third group (33.9%), contrary to the abovementioned two groups, expressed that they had some direct or indirect experiences with DRPs. Experts in clinical and hospital fields mostly identified the DRPs using their professional skills. However, no professional had recorded DRPs or conducted further investigations:

“I’d never suffered side effects until one day I took analgesics three times. One of the doses was taken with coffee and I suffered a hot burn.” (patient 1, area II)

“Sometimes I experience nausea, loss of appetite or fatigue, but not serious conditions.” (customer 1, area III)

“Sometimes I hear from other people that they have taken analgesics and suffered abdominal pain.” (owner 3, area I)

“All problems are minor. Drug sellers make mistakes in selling because they cannot read the handwriting of the prescribers.” (regulator 1, area I)

“Patients generally buy their medication in their own ways—self-medication! They will go to hospitals/clinics only when they suffer side effects, like bleeding from OC pills.” (nurse 2, area II)

“Most are minor cases like nausea, vomiting, and abdominal pain, so we give appropriate treatments for their symptoms. We don’t have records for these cases because they are part of our daily work, and it is no longer considered unusual. As they are patients, they may have many complaints. We don’t delve into the details of whether each case is psychological or related to drug problems. Instead, we provide medicines that are suitable for them.” (doctor 7, area II)

Theme 4: Reductionist approach to gain better pharmacy services

Different viewpoints and recommendations were seen among stakeholders regarding the expectations of the quality of pharmacies and ways to improve them.

a) Microlevel modification (individual level)

Many participants believed that current pharmacy practices could be improved by doing the following:

1. Renovating the structure of pharmacies
2. Recruiting pharmacy staff with appropriate pharmaceutical knowledge
3. Giving necessary training to pharmacy staff with suitable training courses
4. Educating the general public to raise their awareness of quality pharmacies and their practices
5. Enforcing rules on pharmacies strictly

When asked, most patients, customers, and caregivers said that pharmacy workers should speak kindly and warmly with customers or advise patients. It is important to find out the correct way to take medication, relieve symptoms, and cure diseases when they discuss health problems with pharmacy staff:

“People are buying medicines to relieve their pain and treat illness so every drug store should explain the medicines thoroughly, like the side effects, drug information and ways to use them.” (patient attendance, farmer 2, area I)

“They should be friendly to regular customers because I think that it can help make the patients feel better.” (patient 7, area II)

Therefore, most of them expected to upgrade the pharmacies by giving training to drug sellers or employing better trained staff.

“A suitable training course is needed for drug stores to enhance their practice and knowledge (if possible) to not sell unregistered drugs or expired drugs” (patient attendant, farmer 1, area I)

“I would like pharmacies to have trained staff because I notice that they are not skilled at all.” (patient attendance, merchant 1, area I)

Most pharmacy owners said that their practices would improve if the government offered regular training classes regarding pharmacy practice. Some of them also thought that the variations in pharmacy practice must be controlled by strict enforcement.

“I would like to get official training from the government regularly or hold meetings regularly, like once every six months or something like that.” (owner I, area I)

“Well, if the government let us change our practice, we would like to get training regularly and we would like to get recognition from the government. We want uniform rules and regulations.” (seller 1, area I)

“The government should enforce the law strictly in a fair way. If the law specifies ‘No license is issued when there is no compliance,’ then we will follow.” (owner 5, area III)

Additionally, most administrators and professionals claim that sellers are crucial individuals in pharmacies for dispensing medications and improving pharmacy procedures. Therefore, they need to be well-trained. They also believed that the government should specify staff qualifications to categorize pharmacies:

“If the pharmacies have skilled drug sellers, it will be better. If there is a will to improve the pharmacy practice, the staff should be well-trained. The government should specify (in detail) the required education of drug sellers.” (nurse 1, area II)

b) Macro-level thinking (system level)

A few pharmacy owners suggested ways to improve the current situation:

1. Change the entire health system, including reclassifying pharmacies and medicines based on staff qualifications
2. Activate a surveillance system for drug-related problems
3. Strengthen law enforcement in all areas relating to manufacturing, wholesale distribution, private retail, small clinics, and end users (customers)

“It needs to change the whole sector of the health system. The only way to solve the current problems is to change the situation of the whole health sector. Health

systems must be developed. It needs change in an individual's beliefs and perspectives." (owner 2, area I)

"I suppose it cannot solve the problems when the FDA only highlights one sector. So from my point of view, the quality of drugs can be maintained only if all the drugs are in accordance with the standards from the starting points to the end (along the supply chain). You should keep in mind from the starting point of the supply chain, distributors in the middle, drug stores at the lower level and the public as end users at the end." (owner-pharmacist, area II)

"I would like to classify the drug stores based on the level of pharmaceutical knowledge. If the person has a high level of pharmaceutical knowledge, they will get a license for all kinds of drugs; in contrast, the less knowledge they have, the fewer items they should sell." (doctor 1, area II)

4. DISCUSSION

This is the first qualitative study to assess the stakeholders' opinions on the current roles of retail pharmacies in Myanmar and their pharmacy practices. The use of qualitative analysis provided a clearer understanding of the reasoning behind the current situation than quantitative analysis. Stakeholder assessments varied widely in terms of the importance and quality of retail pharmacies. The present study confirms that most of the general public use pharmacy services for access to medication, whether prescribed by doctors or by oneself. They buy a variety of competitively priced products in convenient locations which also saves them time. This finding is supported by a study conducted in the United States, where patients typically choose neighborhood pharmacies based on personal preferences, patient geographic location, and accessibility (Shiyanbola and Mort, 2015). Additionally, previous research conducted in Thailand found that pharmacists strongly recommend retail pharmacies adhere to GPP standards, which contributes to patient safety (Tongyung and Komwuthikarn, 2018).

However, the roles of retail pharmacies in Myanmar were neither considered nor recognized as outlets of healthcare service by professionals in the healthcare system. Numerous authorities and experts acknowledged that community pharmacies play a very limited societal role. They solely regarded most retail pharmacies as places where pharmacists count out and dispense medication. The pharmacy owners adopted a pragmatic strategy.

Most people consider retail pharmacies as groceries. Very few participants acknowledged the critical role of retail pharmacies for access to medications and as channels for information and expertise on medicines, especially when the owners or sellers were knowledgeable individuals. The inadequate number of pharmacists working at retail pharmacies is one reason why public awareness of their availability is still confined to medicines. This may be due to the Myanmar National Drug Law, which does not require the owner or staff of a pharmacy to be a pharmacist. Despite their unacknowledged professional contributions, the proprietors of retail pharmacies proudly said that they meet the demands of customers and ease the financial burden of the common citizen. They have shown their value through their business and social relationships.

Regarding current pharmacy practices, the majority of the respondents were unaware of the benefits and drawbacks. The participants from professional fields and regulators reported a few advantages. However, pharmacy practices have been rated as good or bad depending on a number of factors including the practitioner's opinions, experience, knowledge, and culture. Most of the criteria that the general public used in defining good practice were based on good communication and friendliness of drug sellers. Another advantage was the general public's satisfaction with the pharmacy services. Retail pharmacies were thought to be able to provide the information most wanted, regardless of whether it was scientifically based or not. This study is consistent with the findings of a study conducted by Shiyanbola et al. (2016), which found that staff friendliness was one of the factors that patients considered when choosing a pharmacy to fill a prescription. On the other hand, some participants noticed disadvantages of pharmacy practices that contradicted good practices, such as poor communication when asked questions, dirtiness, and not providing a good service to customers when there were many customers.

The findings of this study partially overlap with those of a study conducted in the UAE by Akshar et al. (2014), which found that pharmacies in the UAE did not provide thorough counseling to patients or inquire about their prescription medication needs. Similarly, pharmacy owners and sellers accepted that "good practice" means helping people and dispensing medications without errors in line with prescriptions. They believed that this was the most effective way to practice pharmacy. This finding is consistent with the findings of a study conducted in Dutch pharmacies in 2003. According to Pronk et al. (2003) patients were pleased with pharmacy staff members' readiness to assist, their politeness, and their informed responses to questions. However, some pharmacy owners expressed concerns about the disadvantages of pharmacy practices. Regarding the sale of unregistered pharmaceuticals in pharmacies, there are numerous motivating factors including customer demand, market trends, and business conditions. These factors contribute to the general malpractice of sellers. From these circumstances, this study confirms the strong and favorable relationship between the general public and retail pharmacies in Myanmar. Overall, the patients and consumers who participated in the study were satisfied with the current services of retail pharmacies. As it was a "win-win negotiation chain," the drugstore owners tried to accomplish their own goals while simultaneously assisting others to meet their needs. Nevertheless, professionals and regulators perceived pharmacy practices and services in a pessimistic light, citing the lack of qualified staff in pharmacies, the free sale of POMs, the mixing of pills, and the fact that most pharmacies were in solely count-and-pour practice. The results concur with those of another study carried out in Pakistan in 2011, which found that most of the dispensers were unqualified and that medicines were mostly sold in pharmacies with little or no counseling to the public. (Hussain and Ibrahim, 2011).

A diverse range of perceptions on DRPs was noticed from the respondents, with most laypeople regarding standard medications as safe and effective. Therefore, medication efficacy is formed culturally and so are the side effects. As the owners, the medicines they sell are registered in respective government offices. This is interpreted to mean that the

government has already guaranteed the quality of the items and that DRPs will never occur if they are sold in accordance with the recommendations of prescribers. Various perceptions of DRPs make it challenging for laypeople to describe and comprehend what a DRP truly is. Therefore, the absence of identified cases of DRP does not mean that there are no DRPs. This is understandable given the absence of an effective medication error reporting system and the newness of the concept of pharmaceutical care in Myanmar. It is necessary to educate the public about DRPs so that they can recognize DRPs and better participate in appropriate drug usage. Moreover, it seems difficult to systematically document DRPs in practice as long as there are different assessments of professionals to identify problems and differences in skills in the classification of DRPs. Lastly, when the respondents were asked about their hopes for pharmacies in Myanmar, the majority of respondents desired the following conditions:

1. Qualified staff or staff with appropriate pharmaceutical knowledge
2. Standardized training for pharmacy staff provided by the government
3. Strict enforcement of the rules and regulations on pharmacies such as GPP.
4. Promoting public awareness of the importance of using quality pharmacy service.

Our research was consistent with numerous earlier local investigations carried out in Myanmar by San (2013), Oo (2016), and Phyu (2016). To improve the current pharmacy practice in local areas of Myanmar, they suggested and recommended that an effective education and training program on drug selling practices and storage practices should be developed and sustained for every owner and seller, and the rules and regulations mentioned in the National Drug Law and bylaws should be strictly enforced to develop the quality of pharmacy services. Contrary to these widespread conventions, only a small number of participants noted that the current pharmacy practices also involved manufacturers, wholesale distributors, clinics, hospitals, and users, who needed to be considered as part of the pharmaceutical industry. Moreover, they commented that the governance of the health system needs to be systematized and a classification system should be applied to pharmacies in order to categorize them according to personnel qualities of pharmacy.

5. CONCLUSION

This study provides a better understanding of stakeholders' demands, opinions, and expectations on current pharmacy services and practices in Myanmar. The study highlights that positive attitudes toward the roles of pharmacy are seen among the general populace, pharmacy owners, and pharmaceutical companies, while regulators and professionals have a pessimistic outlook on pharmacy services. Therefore, with a variety of understandings and views, it could be very difficult to execute GPP. It needs to consider all stakeholders, and there must be many facilitating measures to provide a more improved unified system that is aligned with the entire healthcare system of the country. It will be difficult to reach this goal in a short amount of time without a grasp of the wide-ranging responsibilities. This

study is expected at least, to help inform policymakers regarding how to approach the implantation process in a practical manner.

REFERENCES

- Akinyandenu, O., and Akinyandenu, A. (2014). Irrational use and non-prescription sale of antibiotics in Nigeria: A need for change. *Journal of Scientific and Innovative Research*, 3(2), 251–257.
- Akshar, S., Shamssain, M., and Metwaly, Z. (2014). Pharmacists perceptions of community pharmacy practice in UAE: An Overview. *IOSR Journal of Pharmacy*, 4(6), 47–56.
- Department of Population, Ministry of Labour, Immigration and Population. (2017a). *The Republic of the Union of Myanmar: The 2014 Myanmar Population and Housing Census, Mandalay region, Kyaukse district, Kyaukse Township Report*. Nay Pyi Taw. [Online URL: https://themimu.info/sites/themimu.info/files/documents/TspProfiles_Census_Kyaukse_2014_ENG.pdf] accessed on February 4, 2022.
- Department of Population, Ministry of Labour, Immigration and Population (2017b). *The Republic of the Union of Myanmar: The 2014 Myanmar Population and Housing Census, Mandalay region, Mandalay district, Chanmyatharzi Township Report*. Nay Pyi Taw. [Online URL: https://themimu.info/sites/themimu.info/files/documents/TspProfiles_Census_Chanmyatharzi_2014_ENG.pdf] accessed on February 4, 2022.
- Department of Population, Ministry of Labour, Immigration and Population. (2017c). *The Republic of the Union of Myanmar: The 2014 Myanmar Population and Housing Census, Mandalay region, Pyin Oo Lwin district, Pyin Oo Lwin Township Report*. Nay Pyi Taw. [Online URL: https://themimu.info/sites/themimu.info/files/documents/TspProfiles_Census_PyinOoLwin_2014_ENG.pdf] accessed on February 4, 2022.
- Hussain, A., and Ibrahim, M. I. (2011). Perceptions of dispensers regarding dispensing practices in Pakistan: a qualitative study. *Tropical Journal of Pharmaceutical Research*, 10(2), 117–123.
- Myint, P., Sein, T. T., and Cassels, A. (2015). *What are the challenges facing Myanmar in progressing towards Universal Health Coverage?* Asia Pacific Observatory on Health Systems and Policies. [Online URL: <https://apo.who.int/publications/i/item/WPR-2015-DHS-001>] accessed on February 4, 2022.
- Oo, S. (2016). *Practice of drug sellers in retail pharmacies of Mandalay city area* [Unpublished master's thesis]. University of Medicine, Mandalay.
- Phyu, W. L. (2016). *Assessment of knowledge and attitude on pharmacy practice among urban and rural drug sellers in Nay Pyi Taw Union Territory* [Unpublished master's thesis]. University of Public Health.
- Pronk, M. C. M., Blom, A. T. G., Jonkers, R., and Bakker, A. (2003). Evaluation of patient opinions in a pharmacy-level intervention study. *International Journal of Pharmacy Practice*, 11(3), 143–151.
- Rutter, P. (2015). Role of community pharmacists in patients' self-care and self-medication. *Integrated Pharmacy Research and Practice*, 4, 57–65.
- San, K. K. (2013). *Knowledge, Attitude and Practice towards pharmacy practice among drug sellers in selected*

- townships of west district, Yangon region* [Unpublished master's thesis]. University of Public Health.
- Shiyanbola, O. O., and Mort, J. R. (2015). Patients' perceived value of pharmacy quality measures: A mixed-methods study. *BMJ Open*, 5(1), e006086.
- Shiyanbola, O. O., Mott, D. A., and Croes, K. D. (2016). Using the Consumer Experience with Pharmacy Services Survey as a quality metric for ambulatory care pharmacies: Older adults' perspectives. *BMJ Open*, 6(5), e011241.
- Shroti, R., Nayak, N., and Rajput, M. S. (2011). A study on over the counter drugs in retail pharmacies in Indore city. *Scholars Research Library, Der Pharmacia Lettre*, 3(3), 133-138.
- Stenson, B., Syhakhang, L., Eriksson, B., and Tomson, G. (2001). Real world pharmacy: Assessing the quality of private pharmacy practice in the Lao People's Democratic Republic. *Social Science and Medicine*, 52(3), 393-404.
- Tongyung, P., and Komwuthikarn, K. (2018). Development of drugstores to good pharmacy practice by participatory action research, in Samutsongkhram province. *Thai Food and Drug Journal*, 25(2), 39-48. [in Thai]
- Wiedenmayer, K., Summers, R. S., Mackie, C. A., Gous, A. G. S., and Everard, M. (2006). *Developing Pharmacy Practice: A Focus on Patient Care*. Hague: World Health Organization and International Pharmaceutical Federation, pp. 3-8.
- World Health Organization. (2011). *Annex 8: Joint FIP/WHO guideline on good pharmacy practice: standards for quality of pharmacy service (WHO Technical Report Series, No. 961)*. WHO. [Online URL: <https://www.who.int/docs/default-source/medicines/norms-and-standards/guidelines/distribution/trs961-annex8-fipwhoguidelinesgoodpharmacypractice.pdf>] accessed on February 4, 2022.
- World Intellectual Property Organization. (1992). *Myanmar: National Drug Law (Law No. 7/1992 of October 30, 1992)*. WIPO. [Online URL: <https://www.wipo.int/wipolex/en/legislation/details/6452>] accessed on February 4, 2022.