Chapter 8

Community Pharmacy Marketing in the New Era: A Global Picture of Extended Community Pharmacy Services

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Additional information is available at the end of the chapter

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Abstract

The community pharmacists (CPs) are legally responsible to hand out a wide range of ready-made prescription medications to patients. Additionally, CPs are also involving in advocating customers who determine to self-medicate. Interestingly, it is also noted that CPs in developed countries like the United Kingdom, Germany, and Canada have performed more than these services. What are the extended community pharmacy services available? What are the barriers and perceptions of these extended services? It is rationale to explore such issues globally since it might have potential to give some possible course of action to CPs to incorporate more values to the contemporary services.

Keywords: community pharmacists, extended services, barriers, perception, global

1. Introduction

In the healthcare system, the pharmacists are responsible to audit an instruction inscribed by the medical practitioners to determine potential inappropriate written prescriptions [1]. Such responsibilities are likely to have a profound effect on the success of the healthcare modus operandi since it has potential to wipe out prescribing incongruous medication events [2]. The proceeding is being noticed in the hospital but not at all in non-hospital independent settings. For example, in the developing country like Malaysia, the community pharmacists (CPs) are rarely auditing the written instruction inscribed by the general practitioners (GPs) because GPs are legally given the right to prescribe and dispense medications to their

patients [3]. In other words, GPs are performing their exercises regularly in the absence of CPs to audit their prescribing activities. Such exercises might cause their patients to vulnerable experience potential unwanted effects of improper prescribing and it was noted in an earlier study which corroborates the potentially inappropriate prescribing among the long-term care Irish patients [4]. Therefore, the roles of CPs to audit such improper prescribing among GPs are crucial accountabilities in the healthcare system. Nevertheless, the healthcare modus operandi must act in accordance with the mandatory regulation even though such modus operandi might have potential to inflict harm on anyone else.

As CPs, they are also accountable to advocate the consumers with respect to the safe use of medication, its effectiveness, and cost-effective affair. Such responsibilities were noted in earlier studies throughout the world. For example, it is noted that CPs in the United Kingdom are pointing out their role in maintaining safe use of medication among the consumers [5]. In Canada, CPs are executing the role to corroborate the prescriptions are filled up with quality, safe, and effective medications [6]. Additionally, it is noted that CPs in Finland are having the skills to ensure the rising cost that will not restrict the access to medications by the consumers [7]. Such honorable responsibilities are magnifying the potential roles of CPs in the healthcare system.

Instead of the roles, it is also a crucial intentionality to determine divergent roles which might be performed in the developed and developing countries. Such dissimilar performance might make it easier for CPs to offer particular services in their community pharmacy settings. Furthermore, the services might have potential to intensify the reputation of CPs as a healthcare provider in the eyes of other healthcare practitioners, policymakers, and consumers. Additionally, the extended services might potentially enlarge the earnings scale in community pharmacy settings.

2. Methods of content analysis

A systematic search was performed via international and national literature reviews and studies using Google Scholar and PubMed as an electronic database, searching for abstracts in English from January 2005 till January 2017 for the international search [8] and January 2006 till May 2017 for the national search [3]. The general search terms used were: community pharmacist; extended roles; extended services; expansion roles; expansion services; perception; perspective; attitudes; barriers; limitation; expanded pharmacy services; pharmacist care services; enhanced pharmacy services; private pharmacies; future services; public

Population	**CPs, GPs, customers**
Phenomenon of interest	CPs' extended services; perceptions among CPs, customers, and GPs of extended services. Identifying barriers toward extended services
Primary outcome measures	The outcome measures but not restricted to it were: (1) to describe extended services; (2) to describe perceptions among CPs, customers, and GPs toward extended services; (3) to identify barriers toward extended services
Types of studies	Quantitative and qualitative studies; article reviews

CPs, community pharmacists; GPs, general practitioners.

Table 1. Criteria for inclusion of studies in the report.

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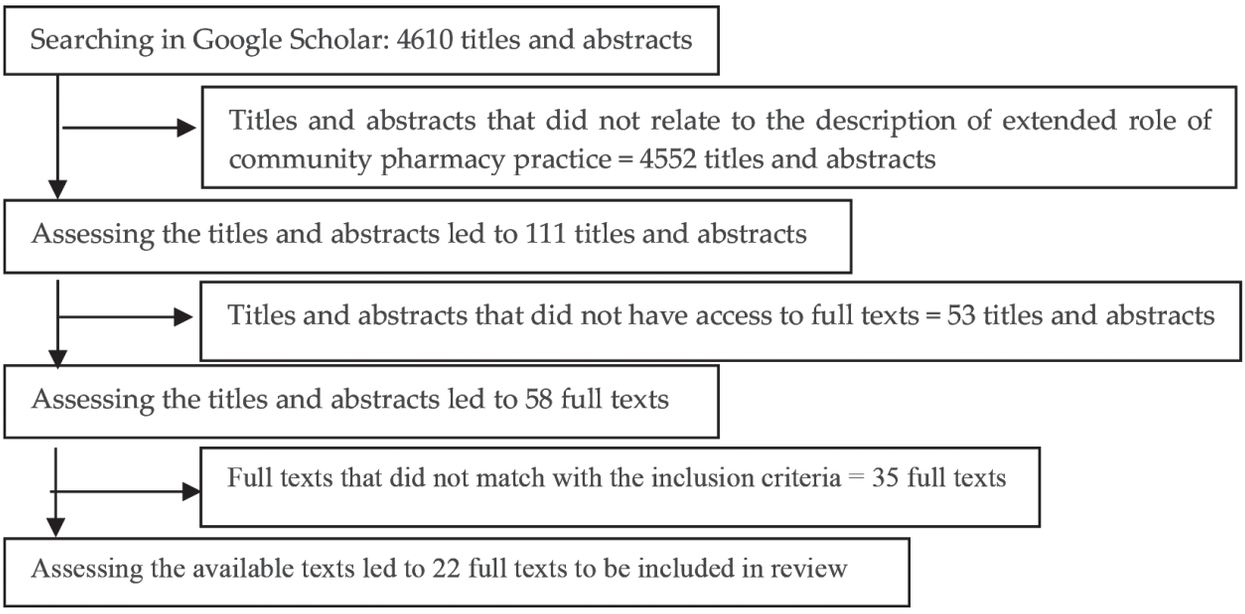

Figure 1. Flow diagram for international search.

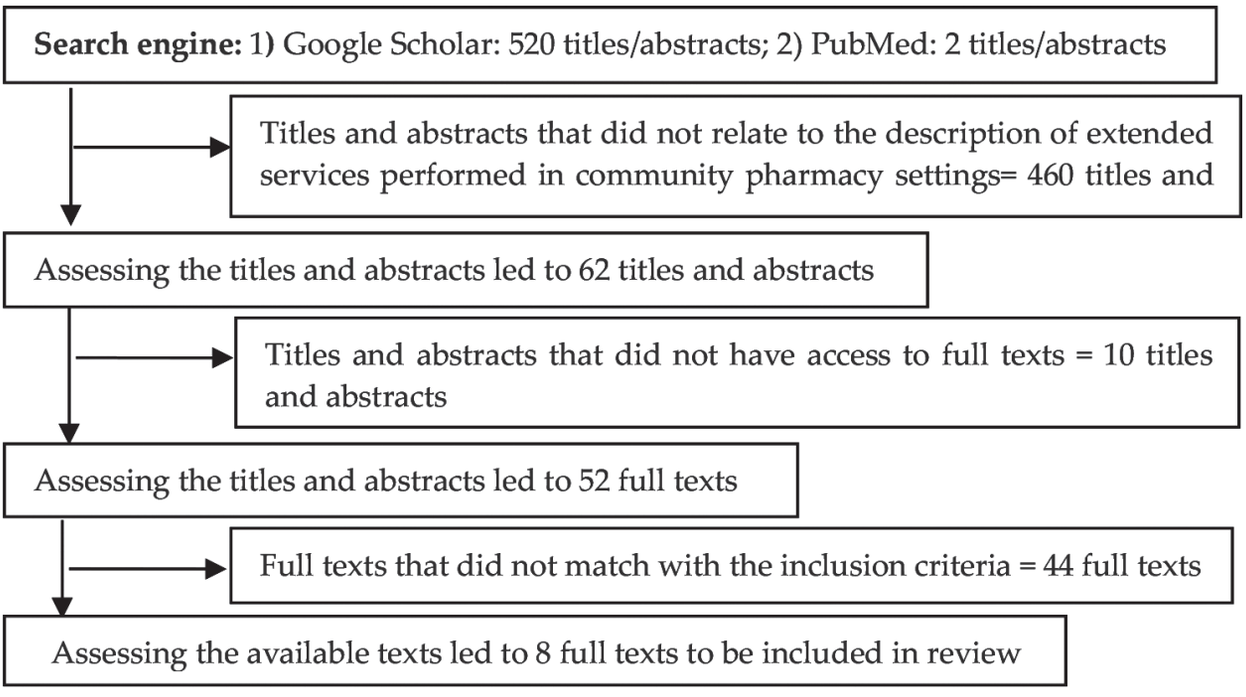

Figure 2. Flow diagram for National Search.

health; healthcare systems; review; pharmacy; community pharmacy; CPs; patient counseling; continuing pharmacy education; disease management; intervention; and healthcare. The abstracts were evaluated by the scholar researcher, searching for relevant materials that fitted with the inclusion criteria as depicted in **Table 1**. The abstracts that concordance with the inclusion criteria were assessed for full texts. Then, another two scholar researchers evaluated in detail the contents of each text, searching for materials that concordance with the criteria in **Table 1**. These inclusive texts were reflected in this report. The flow of the searching process was reflected in **Figures 1** and **2**.

3. Extended pharmacy services

It is noted that there is a wide range of extended pharmacy services available in many countries throughout the world as illustrated in **Table 2** [9–37]. In the absence of Pakistan's scenario [38], other such extended services divulge the true color of CPs' knowledge and skills in an authentic practice. For example, it is noted that CPs in Australia are operating supreme services such as anticoagulant and drug-level monitoring, ostomy counseling, chemotherapy, parenteral, and nutrition preparation. In Canada, it is noted that CPs are executing the roles to advocate their customers for alcohol consumption, smoking cessation, physical activities, and immunization. Interestingly, CPs in the developing country like Sudan are making available services such as emergency oral contraception counseling, hyperlipidemia monitoring, and hypertension care. However, the prominence extended service notified in the table is the provision of pharmaceutical care (PC) in community pharmacy settings as noted in Japan, Hong Kong, China, and the United Arab Emirates. Such extended service is also notified in other countries like Peru [39] and Estonia [40]. It divulges PC as a paramount importance to be performed in the healthcare system side-by-side with other extended services.

There are a lot of earlier studies which disclose such extended service has accomplished positive end results via an authentic practice. For example, it is noted that CPs in Spain are having the quality necessary to exalt medication adherence among the hypertensive patients [41]. In Australia, CPs have executed the role to ameliorate the clinical and humanistic net results among patients who possess type 2 diabetes [42]. Another pharmaceutical care study in Malaysia discloses the potential of CPs to diagnose a wide range of potential undesirable drug-related problems among their customers [43]. It is also notified that there is a review article which divulges the positive impact of smoking cessation program performed by CPs [44]. Consequently, these significant positive impacts are putting on a screen for the consumers and other healthcare practitioners to acknowledge the roles of CPs in community pharmacy settings. Additionally, it might inspire other CPs to persuade the exact service for the benefits of their customers.

Even though there are some CPs who might operate their extended services without demanding dollars as a price from their customers for a service rendered, it is essential to reimburse CPs for their knowledge and skills. For example, an earlier review article has pointed out 60 reimbursement programs for CPs in the United States, Canada, Europe, Australia, and New Zealand [45]. Such reimbursement comprises of payment as such for emergency contraception counseling, advice on minor ailments, comprehensive medication management, medication review, follow-up visit, and time-dependent fee. It is noted that there are variable charges in different countries for the similar extended services. It discloses that the charges must take into account of knowledge, skills, and time exercised by CPs to perform the extended services [46]. Consequently, CPs are given the image as a professional healthcare practitioner like GPs rather than as an entrepreneur.

Nevertheless, it is crucial to perform a systematic inquiry to notify the facts of barriers and perception among the consumers and other healthcare providers so as to establish the truth of these extended services. Such inquiry might intensify the truth operation of these extended services in an authentic practice. Over and above that, the facts and figures which put into picture might have potential to manoeuvre CPs to instigate a strategy formula to get rid of them.

Extended services: Country published [Article #]

Determine DRP: Jordan [14], Netherlands [12], China [15], Sudan [23], UAE [22], Mal [32]

Legal right to prescribe selected medications: United Kingdom [11], Aust [16], South Africa [18]

Proffer the pharmaceutical care concept: Japan [28], HK [29], China [15], UAE [20, 22]

Managing a SC program: Japan [28], Aust [13], Canada [17], Sudan [23], UAE [19], Mal [30, 32, 35]

Advising on healthy diets: Canada [17]

Organizing aboriginal health services: Aust [13]

Counseling on alcohol consumption: Canada [17]

Running an anticoagulation monitoring: Aust [13]

Deliver an asthma care: Aust [13], UAE [22], Mal [30]

Offering a body piercing service: Aust [13]

Chemotherapy preparation: Aust [13]

Community health education: Aust [13], Sin [9], HK [27], China [15], Sudan [23], UAE [22], Mal [30, 32]

Community clinic service: Aust [13], Mal [36, 37]

Counseling on physical activities: Canada [17], Mal [30, 35]

Diabetes care service: Aust [13], Canada [17], UAE [19, 22], Mal [30]

Service for patients discharged from hospital settings: Aust [13], Netherlands [12]

Drug-level monitoring or kinetic dosing service: Aust [13]

Emergency oral contraception counseling: Canada [17], Sudan [23]

Geriatric care service: Aust [13], Japan [26, 28]

Harm reduction methadone service: Aust [13]

Herbal and nutritional supplement counseling: Aust [13], UAE [19], Mal [30, 35]

Hyperlipidaemia monitoring service: Aust [13], Canada [17], Sudan [23]

Hypertension care service: Aust [13], Canada [17], Sudan [23], Mal [30, 35]

Drug misuse counseling: Mal [30]

Immunization program service: Canada [17], UAE [22], Mal [30]

Referring patients to GPs: Mal [32]

Lifestyle modification counseling: HK [27], Canada [17], UAE [19]

Medication counseling or review: Nepal [25], Netherlands [12], Sin [9], HK [27, 29], China [15], Russia [10], Sudan [23], UAE [19, 22], Mal [30, 31, 32, 34]

Minor ailment or self-care consultation: Sin [9], HK [29], China [15], UAE [19], Mal [32]

Naturopathy counseling: Aust [13]

Nutritional support including parenteral and enteral nutrition service: Aust [13]

Osteoporosis care service: Aust [13], Japan [26]

Ostomy counseling: Aust [13]

Pediatric pharmacy service: Aust [13]

Pain management service: Aust [13]
Pharmacist-led patient self-management of chronic disease: HK [27, 29]
Psychiatric pharmacy service: Aust [13], Belgium [24]
Sexual health counseling: Canada [17]
Skin-care management service: Aust [13]
Specialized compounding service: Aust [13], UAE [22]
Weight management counseling: Aust [13], Canada [17], UAE [19], Mal [30]
Wound care service: Aust [13], UAE [19]
Monitoring medication outcome: Mal [32]
Providing medication information to GPs: Mal [32]
Oral health counseling: Mal [30]
Special population counseling: Mal [30]
Breast cancer counseling: Mal [33]

GPs, general practitioners; UAE, United Arab Emirates; HK, Hong Kong; Mal, Malaysia; Aust, Australia; Sin, Singapore; DRP, drug-related problem; SC, smoking cessation; #, number.

Table 2. Details of countries which indicate extended pharmacy services.

4. Barriers and perceptions of extended community pharmacy services

There is a wide range of barriers to the performance of extended services notified as illustrated in **Table 3**. Such barriers are a serious impediment to the extended service's progress and it is noted that CPs, GPs, and consumers can be the origins of the barriers. For example, CPs in the United Kingdom, Australia, Belgium, Nepal, Netherlands, Singapore, Canada, and the United Arab Emirates specify a lack of time to spend with their customers might be the paramount barrier to the extended services. Additionally, CPs in the United Kingdom and Australia have to reinforce self-confidence to perform such services since there is a potential lack of on-going training for them. Interestingly, it is notified that CPs in Russia and Sudan are incorporating a lack of clinical component in the pharmaceutical education as the obstacle which puts a stop to the extended services. Foremost, it is noted that CPs in the United Kingdom, Singapore, the United Arab Emirates, Canada, Australia, and China might lose their enthusiasm to implement such extended services due to reimbursement affair. Furthermore, CPs in the United Kingdom and Canada intensify the extended services and require financial support. Therefore, it is crucial intentionality to determine such barriers and CPs must have the devotion to rectify the situation with strong feeling and belief of each extended service that can benefit their customers at all.

Most prominent in rank, it is noted that CPs might not have an interest to execute the extended services due to their absence of knowledge and skills as illustrated in **Table 3**. The reasons

Barriers: **Country published (Article #)**

Lack of on-going interaction between CPs and customer: Jordan [14], Japan [28], Pakistan [38], HK [27, 29], Canada [17]

Not regular customers: Canada [17]

Customers do not like to be condemned for their lifestyles: Canada [17]

CPs put more effort into product-oriented service: Jordan [14], Japan [28], Sin [9], HK [27], Russia [10], UAE [19, 20]

Customers are in rush and do not have much time to interact with pharmacists: Canada [17]

CPs are not always available at pharmacies: Canada [17]

Pharmacy program in university is basically product-oriented rather than patient-oriented: China [15]

Lack of clinical components in pharmacy education: Russia [10], Sudan [23]

Absence of legal regulation to conserve customer medication documentation: Jordan [14]

Lack of time to counsel: UK [11], Aust [13], Belgium [24], Nepal [25], Netherlands [12], Sin [9], Canada [17], UAE [19]

Owner does not have the interest to provide such extended services: Canada [17], Russia [10], Mal [30]

Customers do not have an idea about benefit of such extended services: Canada [17]

Lack of interrelationship among the CPs: Sin [9]

Shortage of pharmacists: Aust [13], Pakistan [38], Canada [17], China [15], Mal [34]

Shortage of supporting staffs: UAE [19], Mal [33]

Lack of financial support: UK [11], Canada [17], Mal [33, 36, 37]

Lack of self-confidence to execute such services: UK [11], Aust [13], South Africa [18]

Low perception of self-competence: UK [11], South Africa [18]

CPs have been overworking: Canada [17]

Language barrier: Mal [34]

Lack of working relationship with other HPs: UK [11], Aust [13], Belgium [24], Sin [9], HK [27], Canada [17]

Lack of managing support: UK [11], Mal [30]

Such extended services are not composed of a conservative pharmacy profession: Aust [13], China [15]

On-going searching for a location to perform: UK [11]

Competition with colleagues for a location to perform: UK [11]

Lack of confidence or trust among customers: UK [11], Belgium [24], Nepal [25], HK [29], UAE [20, 22]

Customers are not ready to undergo a chance in the conservative practice: Canada [17]

Customers reject to reimburse for such extended service: Aust [13]

Lack of reimbursement scheme: UK [11], Aust [13], Belgium [24], Sin [9], UAE [19], Canada [17], China [15], Mal [30]

Lack of clinical supporting tools: Canada [17], South Africa [18]

Lack of recognition as a supreme healthcare practitioner: Pakistan [38], Sin [9], HK [27, 29], Sudan [23], UAE [21, 22]

Lack of continuing support: UK [11]

Having existence of many technical burdens to be sorted out: UK [11], Canada [17]

Lack of knowledge and skills: Aust [13, 16], Belgium [24], China [15], Pakistan [38], Nepal [25], HK [27], Canada [17], Russia [10], Sudan [23], UAE [22], Mal [33, 34]
Lack of competence to formulate a drug therapy plan: UK [11]
Other HPs confuse with recent extended services: UK [11], Aust [13], HK [29], UAE [21], Sudan [23], Mal [32, 36, 37]
Lack of on-going training program: UK [11], Japan [28], Aust [13], HK [27], Sudan [23], Mal [30, 33, 34]
Lack of profitability: Mal [30, 33]
Government/organizational puts a stop to such extended services: UK [11], Pakistan [38], Sin [9], HK [27, 29], UAE [19]
Lack of an access to medication record: UK [11], Belgium [24], Sin [9], Aust [13], HK [27], Canada [17], Sudan [23]
Other HPs have a negative way of thinking: UK [11], Aust [16], Pakistan [38], HK [27], Canada [17], UAE [21, 22]
Lack of a return performance evaluation: UK [11]
Such extended services confusticate the customers: UK [11], HK [27, 29], China [15], South Africa [18]
Absence of a counseling space: UK [11], Belgium [24], Canada [17], South Africa [18], Mal [34]
Absence of a principle model as a merit procedure for CPs: Canada [17], Russia [10], UAE [22], Mal [30]
Lack of confidence and trust among GPs: Mal [32, 36, 37]
Gender barrier: Mal [33]
Health promotion which is carried out by the customers: Mal [30]

GPs, general practitioners; CPs, community pharmacists; HK, Hong Kong; UAE, United Arab Emirates; Sin, Singapore; Aust, Australia; UK, United Kingdom; Mal, Malaysia; CPs, community pharmacists; HPs, healthcare providers; #, number.

Table 3. Details of countries which indicate barriers toward performance of extended pharmacy services.

are putting into the frame that it is crucial to initiate a strategy formula in order to eliminate the barrier toward extended services. In absence of the strategy formula, CPs might not have the opportunity to undergo phenomenal experience via extended services. Therefore, in our opinion, it is necessary to give intellectual to CPs who can take the first step to commerce a triage action mode as an earlier extended service in community pharmacy settings. Such action mode is a critical exercise because CPs are always in the right position to act as a 'gate-keeper' to the entire healthcare system. Following the sequence, it is believed that CPs might make a start to acquire knowledge and skills in dissimilar extended services in order to serve the customers. Nonetheless, it is necessary to institute a fundamental procedure for CPs to follow in making an accurate triage action plan. The procedure should be simple and easier to be carried out in the frenetic surrounding.

Nevertheless, the consumers in point of fact are the paramount importance to the provision of extended services in community pharmacy settings. Such extended services turn to be ineffectual if the consumers refuse to admit the true benefits of such services. As a result, the consumers might testify against such extended services via their negative justification. For example, as illustrated in **Table 3**, it is noted that the consumers in Canada possess insufficient time to be in contact with CPs and such extended services are not adjudged to be the recipient to ameliorate their health status. Such feeling and beliefs are obstacles to the normal progress of

commencing a wide range of extended services. Therefore, it is notified that some customers in Australia refuse to reimburse CPs for such services. Consequently, it is crucial to take into account of consumers to be members of policymaker so that their official spokesman can give intellectual, moral, and instruction to the society about the benefits of such extended services.

Foremost, GPs and consumers must acknowledge the role of CPs as the supreme medication protector in the healthcare system. Their feeling and belief might make the extended services look more attractive or otherwise. Therefore, it is critical to determine their point of views regarding the provision of extended services in community pharmacy settings. As illustrated in **Table 4**, it is notified that CPs in the United Kingdom, Australia, Hong Kong, South Africa, the United Arab Emirates, and Sudan have taken into account of collaborating with GPs to

Perception of extended services: **Country published (Article #)**
Customers rarely adjudge the community pharmacy as a healthcare facility: Jordan [14]
Having a tendency to minimize the general practitioners' overburden duties: Aust [13]
Supporting from the pharmacy associations to exercise such extended services: UK [11], Aust [16]
Government's rule to execute such extended services: UK [11]
A solution to the shortage of general practitioners: UK [11]
Reimbursement scheme for such extended service: UK [11]
Determine to exercise their knowledge and skills: UK [11], Nepal [25], Aust [16], South Africa [18], Sudan [23]
Determine to experience a new challenge in an on-going practice: UK [11]
Advancing personal marketability: UK [11]
A duty to take more responsibilities with their medication action plan: UK [11], South Africa [18]
A potential to establish a working relationship with other healthcare providers: UK [11], Aust [16], HK [27], South Africa [18], UAE [21], Sudan [23], Mal [31, 33, 36, 37]
Magnifying the superior image of pharmacy practice: UK [11], South Africa [18], Mal [33]
A part to enlarge on-going career: UK [11]
Benefit the profession in many aspects: UK [11], South Africa [18]
Personal satisfaction: UK [11], Nepal [25]
Benefit the customers: UK [11], Nepal [25], Sudan [23]
Improving sales: Nepal [25], UAE [20]
A strategic plan to eliminate business competition: Nepal [25], UAE [20]
GPs are not favor of CPs to conduct the smoking cessation program: Mal [32]
GPs are favor of CPs to determine the drug-related problems: Mal [32]
GPs are willing to work side-by-side with CPs to review medication outcome: Mal [31, 32]
GPs are aware of CPs more toward patient-oriented profession: Mal [31]
GPs are not favor of CPs to document customers' profiles: Mal [31]
GPs are not favor of CPs to recorrect written prescriptions themselves: Mal [31]

GPs are favor of CPs to refer customers to them: Mal [31, 32]
CPs are not regarded as the best practitioner to advise GPs about the rationale medication use: Mal [31, 32]
GPs should listen to CPs about written prescriptions' issues: Mal [31, 32]
CPs are not well trained to perform screening tests: Mal [31]
GPs are favor of CPs to treat minor ailments: Mal [31, 32]
CPs are underestimated by GPs: Mal [31]
CPs' knowledge and skills are underutilized: Mal [32]
CPs are not well trained in clinical therapeutic knowledge: Mal [31]
Customers appreciate extended services: Mal [33, 35]
CPs are potential to counsel about health screening: Mal [33, 35]
CPs are the best practitioner to educate about medications: Mal [31, 32]
CPs should involve in health promotion: Mal [32, 33, 35]

GPs, general practitioners; CPs, community pharmacists; Aust, Australia; UK, United Kingdom; UAE, United Arab Emirates; Mal, Malaysia; HK, Hong Kong.

Table 4. Details of countries which indicate perception of extended pharmacy services.

operate such extended services. Such working relationship might bring benefits to consumers at all. For example, it is notified in an earlier study which signifies that such relationship can be a service to superintend hypertension patients [47]. Additionally, it is noted that such relationship in managing more chronic diseases have been reflected in an earlier review article [9]. Nevertheless, such working relationship might have potential to summon misconception in the responsibilities of both parties as notified in an earlier study [48]. Therefore, it is necessary to initiate a constructive strategy to fortify such working relationship in the healthcare system [49]. The strategy formula must have a conceptual framework as a general guiding principle to make it easier for CPs to work side-by-side with GPs. For that reason, an instrument is known as STARZ-DRP put into operation as a course of action to enroll both healthcare providers into a strategy medical team [50].

5. STARZ-DRP as a tool to attach GPs and CPs in the identical practice

It is necessary to have a fundamental procedure to follow in advanced prior to execute the other extended services. The procedure should help out CPs to have an initial idea regarding each individual feature acquired via counseling session. In other words, it is crucial for CPs to make an accurate triage action plan as an earlier extended service based on the up-to-date information. For example, the idea to refer the customers to GPs for immediate medical attention should be the first in the sequence of making a triage action plan. Such ethical responsibilities might have potential to save the customers' life from inappropriate medication use.

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The following sequence is to help out CPs to make a medication therapy plan. It might involve CPs and customers to sit down and start to determine the ideal medication to alleviate the on-going minor ailments or maintain the current health status. Consequently, this sequence is magnifying the role of CPs as an adviser to the customers. The last sequence in a triage action plan is to help out CPs to assist their customers to experience the other extended pharmacy services which are available in community pharmacy settings as illustrated in **Table 2**. The main intention is to help out the customers to enhance their quality of life via CPs' knowledge and skills. Furthermore, the knowledge and skills might have potential to add on more value to an earlier medical treatment or else. As a consequence, it is critical for CPs to start out this triage action mode as a fundamental extended service in advance. Therefore, STARZ-DRP is picked up as the appropriate fundamental procedure to follow via experience in an earlier study [43]. Foremost, STARZ-DRP is helping out CPs to execute the role as the supreme medication protector via determining the drug-related problem (DRP) which might have potential to be the origin of actual or potential medical problem [50]. As a consequence, it is the opportunity for CPs to interact with GPs to discuss in detail about the DRP which might be experienced by the customers.

STARZ-DRP is a simple mnemonic to remember and it is initiated to make it easier for CPs to make an accurate triage action plan and distinguish the origins of DRP [50]. As illustrated in **Table 5**, the mnemonic integrates several words which are entitled to act as an action to

Letter	Description
S	**Symptom presentation** refers to subjective evidence of health problem perceived by the patient
T	**Time of onset and duration** of the present symptoms
A	**Associated symptoms** refer to patient symptoms explored and determined by the pharmacist during the interview. It does not refer to the symptoms presented earlier by the patient. This is done by using the pictorial documentation form as depicted in **Figure 1**. To aid and ease the pharmacist during the interview, the human body is arbitrarily divided into four regions: (i) Front: the part of the body facing the pharmacist (asking for symptoms like bloating, heartburn, nausea, vomiting, breathlessness, etc.), (ii) Back: (asking for symptoms like lower and upper back pain, shoulder pain, and neck pain), (iii) Upper (head) (asking for symptoms like headache, dizziness, problems with sleep, etc.), (iv) Lower (asking for symptoms like numbness in both legs and hands, constipation, and swollen feet). Perhaps, the method is likened to a filtering or screening process to rule out the presence of severe symptoms.
R	**Recurrence problem** refers to the symptoms have been treated before, specifically when the symptoms recur and persist despite the treatment prescribed.
Z	**Zoom into the patient's medication experience** refers to information collected by the pharmacist related to any medical problems (e.g., hypertension, diabetes, hyperthyroid, etc.), medication utilization (e.g., use of prescription and non-prescription drugs, and herbal supplements), immunization history, allergies, drug sensitivities, drug side effects, adverse reactions, and the consumption of alcohol, caffeine, and tobacco.

[#]This is not a diagnostic tool, rather it is a format with the purpose of organizing a community pharmacist's knowledge in a manner that allows him/her to begin identifying the actual and potential drug-related problems and subsequently referring triage patients to the appropriate healthcare professionals.

[*]The patient's vital signs will be measured when necessary. At times, the patient's blood pressure, pulse rate, and body temperature are measured to aid the pharmacist in assessing the appropriateness of symptoms for self-medication.

Table 5. Definition of letters in STARZ [#,*].

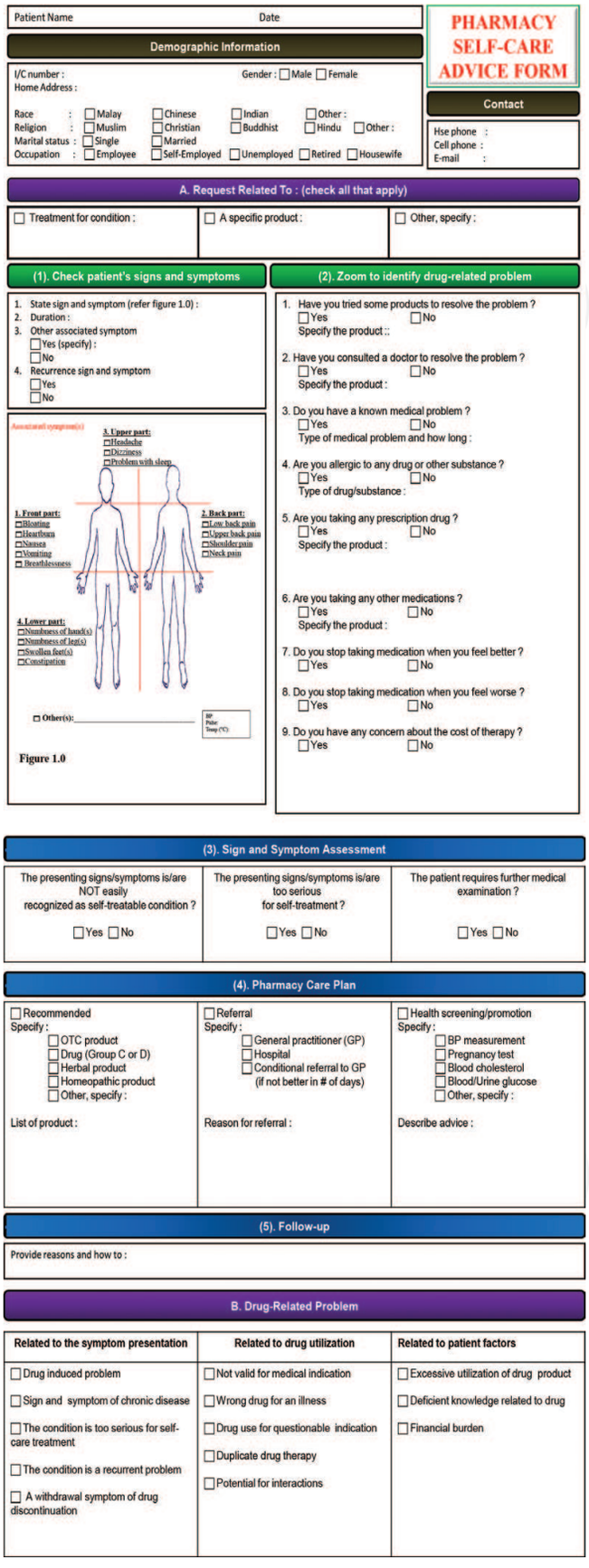
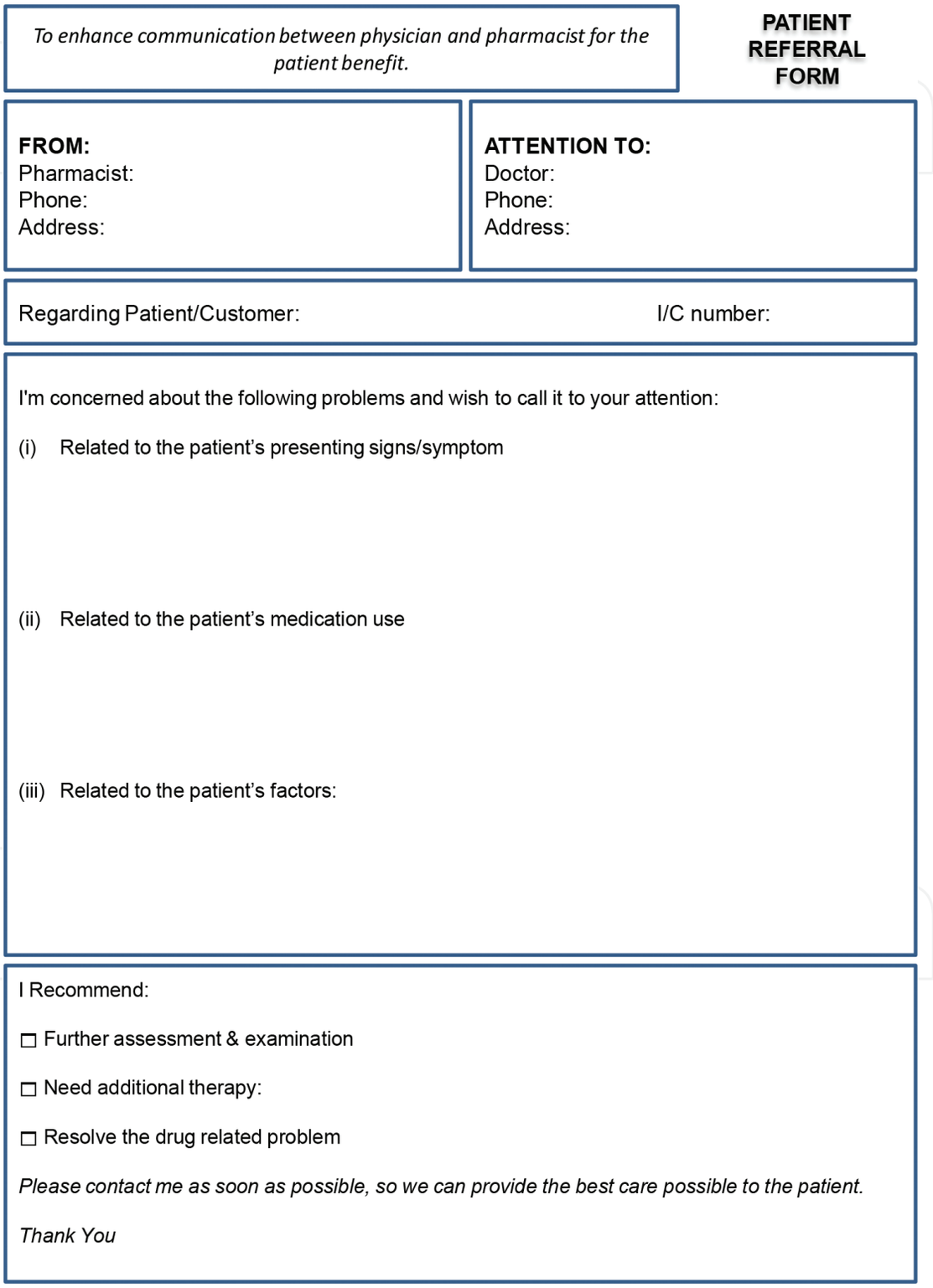


Figure 3. Pharmacy self-care advice form.

scrutinize customer features. CPs are necessary to act in the same direction while operating the appraisal via the tool and it is prohibited to ignore a single word in STARZ-DRP. For example, there is an inclination toward a particular word in STARZ-DRP such as 'A' since it


To enhance communication between physician and pharmacist for the patient benefit.

PATIENT REFERRAL FORM

FROM:
Pharmacist:
Phone:
Address:

ATTENTION TO:
Doctor:
Phone:
Address:

Regarding Patient/Customer: I/C number:

I'm concerned about the following problems and wish to call it to your attention:

(i) Related to the patient's presenting signs/symptom

(ii) Related to the patient's medication use

(iii) Related to the patient's factors:

I Recommend:

☐ Further assessment & examination

☐ Need additional therapy:

☐ Resolve the drug related problem

Please contact me as soon as possible, so we can provide the best care possible to the patient.

Thank You

Figure 4. Patient referral form.

is not a conventional practice to assess such features. However, it is notified that such precise word might help CPs to determine critical signs and symptoms that require instant medical attention [51]. On top of that, CPs shall not fail to hit the single word is known as 'Z' in STARZ-DRP. Such a single word is the paramount importance to determine the origins of actual and potential drug-related problems. It has been notified in an earlier study regarding the potential of CPs to determine, counteract, and rectify drug-related problems [52]. In the authentic practice, the role to determine the origins of drug-related problems is the rightful possession of CPs. Furthermore, CPs are the supreme medication protector who are trained in superintending medication affairs in the healthcare system.

STARZ-DRP has been initiated in a printed paper as illustrated in **Figure 3**. The main objective is to make easier for CPs to transcript the verbal data of customer features into a written version. Such a proceeding is to facilitate CPs to reminisce about earlier events when CPs counsel their customers during a follow-up session. Consequently, the proceeding might precipitate CPs to determine the successful result of the previous triage action plan. In other words, CPs might have to initiate another alternative triage action plan if the earlier blueprint disappoints to wipe out the origins of the medical and medication affair. In such authentic practice, a referral to GPs must be carried out using the form as illustrated in **Figure 4** in order to request for advanced medical examination or advice. Interestingly, CPs can put in writing about their earlier observation so that GPs will have some ideas about the customers.

An earlier study has pointed out that CPs' knowledge and skills to make a triage action plan are ameliorated after CPs emerged in a STARZ-DRP training [53]. Additionally, significant differences are noted in some of the knowledge and skills after weighing up the mean scores of pre- and post-training. Among the significant differences, the self-confidence to assess and determine individual features that acquire immediate medical attention or non-prescription medications are noted. As a consequence, it is an aspiration if CPs can determine STARZ-DRP as a potential mode of action to execute the initial extended service in community pharmacy settings.

Sincerely, such proceeding should be reimbursed with appropriate dollars as it takes CPs to perform their knowledge and skills to determine the triage action plan and origins of drug-related problems. In addition, CPs have to spend their time to interact with their customers via the proceeding. Foremost, CPs should be adjudged as a supreme healthcare practitioner in determining all medication affairs in the healthcare system.

6. Limitation to the use of STARZ-DRP in the authentic practice

In general, STARZ-DRP might not have potential to help out CPs to execute extended services unless CPs are well trained in clinical therapeutic knowledge. Such knowledge should come into possession via higher pharmacy education in the university. In the absence of such knowledge, CPs might not have self-confidence to interact with customers. Subsequently, CPs might also have potential to keep distance from GPs as a way to avoid being cross-examined regarding the customers' medication affairs. As a consequence, it is necessary to initiate a strategy formula to add in more clinical therapeutic knowledge in the pharmacy program.

Additionally, STARZ-DRP acquires CPs to retain possession of customer features in a printed paper as illustrated in **Figure 3**. Subsequently, there is a potential to experience some issues like unable to track down the printed paper because it is not in its expected place or absence of a proper cabinet to put aside all printed papers. Therefore, in the near future, STARZ-DRP might have potential to be exercised via a softcopy version. Such a legible version might eliminate the issues as noted in advanced. As a consequence, STARZ-DRP is eligible for CPs who might have an interest to sustain their authentic practice in up-to-date scenario.

Foremost, STARZ-DRP acquires CPs to allocate a few moments in their life to interact with the customers in order to understand about their features. Failure to execute the moments might have potential to put an end to other extended services. Therefore, it is crucial for CPs to have motivating force to perform STARZ-DRP as a mode of action. In the scenario, the pharmaceutical association should take the responsibilities to convince the policymakers to enforce a regulation for CPs to make an accurate triage action plan for each customer. The policymakers should have absolute understanding that STARZ-DRP might have potential to benefit the customers at all.

Aftermost, CPs must allocate a space for a private conversation with their customers. It is necessary to have the private room in order to protect the information obtained via the conversation to be heard by other customers. Subsequently, it might have potential to ease the customers to voice out their features to CPs. As a consequence, CPs might have the opportunity to determine an appropriate triage action plan.

7. Benefits via STARZ-DRP model

STARZ-DRP is a conceptual framework for CPs and it emerges from the concept of PC which acquires CPs to determine DRP among the customers who are on short- or long-term treatment. STARZ-DRP had been incorporated into an earlier study in order to look into its feasibility to be put into practice in non-hospital independent facilities [50]. Interestingly, the model is able to coach CPs to determine a wide range of DRP as well as help out CPs to initiate an accurate triage action plan. Consequently, the end result is bringing to the public attention about the competence of the model to be the course of actions for CPs in their on-going practice. Subsequently, the model is on the right track to reject the idea as a theoretical work.

In general, STARZ-DRP is actually helping out CPs to market their critical accountability as a supreme medication protector in the healthcare system. In other words, CPs must make sure that each customer is accessible to a wide range of medications which its safety, effectiveness, quality, and cost-effective are protected. It might involve the customers who are on short- or long-term treatment. Consequently, the role might have potential to magnify the image of CPs in the healthcare system. Moreover, the model acquires CPs to be more responsible with each decision made. Therefore, the model is practical to be put into the on-going practice despite different languages, culture, and healthcare modus operandi.

Moreover, STARZ-DRP might have potential to help out CPs in Malaysia to market their position as a healthcare provider after CPs are taken into account as an entrepreneur for such a long time [3]. STARZ-DRP might show the way for CPs to determine the basic extended service

prior to other extended services in advanced. Subsequently, STARZ-DRP might have potential to influence CPs to add in more values into their conservative exercise. As a consequence, the scenario might attract the attention of other healthcare providers, policymakers, and customers to put their absolute trust on CPs to manage all medication affairs. Otherwise, the other medical practitioners like doctor and nurse might take the chance to market their knowledge and skills via managing the medication affairs. At the end, CPs will have to breathe harder in order to sustain their existing in the healthcare system.

CPs must move forward to market their expertise in dissimilar extended services. It is necessary to have such mission and vision in order to sustain their values in the eye of other healthcare providers, policymakers, and customers. It is noted in an earlier study that STARZ-DRP might have potential to eliminate a wide range of DRP in the community pharmacy settings [43]. Such a role points out that CPs can perform the identical exercise like the clinical pharmacists in the hospital settings. Subsequently, in the near future, it is necessary to review the definition of clinical pharmacists for the non-hospital settings. As a consequence, it might have potential to eliminate the image as an entrepreneur and put into the frame the image as a respected healthcare provider.

8. Conclusion

It is notified that CPs can market their knowledge and skills via a wide range of extended service. Nevertheless, CPs must determine the origins of barriers toward such extended services and perceptions of the services in the eyes of customers and GPs. Consequently, CPs have to initiate a strategy formula to eliminate such barriers and perceptions. It is noted that STARZ-DRP is an applicable model to help out CPs to commerce an earlier extended service via the role as a 'gate-keeper'. Additionally, STARZ-DRP might have potential to show the way the exact mode of action prior to other extended services in advanced. The rationale of the article is the fact that it might have potential to help out CPs to incorporate the concept of PC into their on-going practice. Moreover, the model as noted in advance is able to integrate CPs with GPs and work side-by-side for the sake of the customers. Subsequently, the model might have potential to magnify the image of CPs as a supreme medication protector in the healthcare system.

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Conflict of interest

Authors declare no conflict of interest in the study.

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