

Development of a competency framework for community pharmacists

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Abstract

Background: *This aimed to develop a competency framework for community pharmacists in the Philippines in order to help facilitate the development of these professionals. No research at the local and national levels has described yet an approach to the design and evaluation of such framework.*

Methods: *Both qualitative and quantitative research methods were employed. Grounded theory was used alongside survey research. Specifically, records review, content validity and reliability testing were done prior to the administration of the final questionnaire (or assessment tool) to community pharmacists from the Baguio–Benguet area.*

Results: *Competencies of community pharmacists in the Philippines were clustered into four, namely: management and organization skills; information, communication and education on health care and medicine; dispensing and ensuring optimal use of medicines; and, ethical, legal and professional responsibilities. Community pharmacists perceived themselves to be competent in doing the activities or manifesting the behaviors included under the aforementioned clusters 75% of the time. Groupings of respondents based on demographics were also identified. ANOVA, Scheffe and t-tests revealed that community pharmacists who were in independent type of drugstores and aged 31–35 years old perceived themselves to be most competent in all the clusters, except in management and organization skills where the oldest group in age (>35 y.o.) and in practice (>10 yrs.) and who are owners considered themselves as most competent.*

Discussion: *Younger staff (in age and in practice) and chief pharmacists, especially those who are in chain drugstores, need support to increase their confidence in their skills, knowledge and abilities. The oldest community pharmacists (in age and in practice), especially owners, need to respond and adopt to the changes being introduced to pharmacy practice, in addition to the need of reawakening their ethical, legal and professional responsibilities.*

Keywords: *community pharmacists, competency, competency framework*

Introduction

The practice of pharmacy in the community setting predominates in the Philippines. According to Kelly (2007), it is the heart and soul of pharmacy practice. About 60% of pharmacy graduates work in community pharmacy practice sites after graduation. Community pharmacists are the frontliners in terms of the delivery of primary health care to the people. They are the most accessible community health professionals, possessing capabilities in areas such as provision of drug information, health and wellness promotion. They are in a unique position to informally communicate drug knowledge with the community.

In the paradigm shift within the profession of pharmacy, from product to patient, a competent community pharmacist is a professional who can effectively communicate and is competent in performing both operational and clinical services pertaining to community pharmacy (Lee, Machado, Wenzel, Gagnon & Calomo, 2005). To be true health-care professionals, they would have to orient their focus toward the patient, toward drug-decision responsibilities, and become medication management experts. Medication management is a strategy that attempts to use drug therapy more efficiently to achieve definite outcomes that improve a patient's quality of life (Pharmacists and Primary Health Care, 2004).

With this responsibility, the competence of community pharmacists should be assessed accordingly by using a framework in order to improve the health care services being delivered. Based on the paper of Robles (2008), standards define the accepted level of performance for

which members of a profession are accountable. On a national level, these standards are a rational foundation in establishing best practice guidelines of various specialty practices as well as in formulating terminal competencies for professional education.

Whiddett and Hollyforde (1999), as cited in Mills, Laaksonen, Bates, Davies, and Duggan (2005), define competence as the ability to carry out a job or task, whereas competency is a quality or characteristic of a person related to effective performance. In clinical practice, it is a combination of task-orientated competence and the behaviorally related competencies that are required to deliver quality care to the patient (Rethans, Sturmans, Drop, Van der Vleuter and Hobus, 1991). But maintaining a high level of clinical knowledge does not make a person a competent practitioner; it is how this knowledge is applied in conjunction with other skills that determines competence (Whiddett and Hollyforde, 1999, Mills et al., 2005). A competency framework is a collection of competencies thought to be essential for effective performance. They are grouped into clusters and have associated behavioral indicators.

In most developed countries, a competency framework specific to the practice of pharmacy in the community is well-established and recognized as a means to facilitate individual continuing professional development and assist with performance review (Picton & Neal, 2002), thus progress could be seen in the provision of pharmaceutical care. However, such is not yet in place in certain developing countries.

A research conducted in India (Basak, Prasad, Arunkumar & Senthilkumar, 2005) revealed that about 50 percent of the pharmacies function without pharmacists. Fifty eight percent of pharmacists dispense prescription drugs without prescription. More than 80 percent of the retail pharmacists are not aware of rational drug use and have not even heard about transdermal patches. The retail pharmacists rarely counsel patients and examine the prescription for medical errors.

In Malaysia, a survey explored patient-oriented services provided by the community pharmacist beyond processing of prescriptions and dispensing of medications. The results revealed a trend towards the provision of such activities but this was not widely implemented. The research noted that if willingness and abilities to perform such activities were the significant barriers, then educational programs should be initiated to provide the missing competencies (Sarriff, 1994).

Community pharmacy is often perceived as a place where medicines are bought or as a business with the goal of making enough profit in order to commercially succeed. In the Philippines, the traditional misconception that community pharmacists are “glorified salesclerks” or medicine sellers (Konduri, 2003), “underutilized” health care professionals or underused resource (Oparah & Arigbe-Osula, 2002) in a “drug – grocery store”, still persists to these days.

It is with this background that this study aims to develop a competency framework for Baguio-Benguet community pharmacists. It does so by (a) finding out the competencies required of community pharmacists in the Philippines; (b) determining the self-assessed competency level of community pharmacists from Baguio–Benguet, and (c) exploring the influence of community pharmacists’ characteristics (age, type of company, employment status and length of practice) on their self-assessed competence.

Design and Methodology

In developing a competency framework for community pharmacists, both qualitative and quantitative research methods were employed. Grounded theory was used alongside survey research. Specifically, records review, content validity and reliability testing were done (Phase I) prior to the administration of the final questionnaire (or assessment tool) to community pharmacists from the Baguio–Benguet (Phase II) area.

Population and Locale of the Study. Licensed pharmacists working in community pharmacies or drugstores in Baguio–Benguet were the subjects/respondents of the study. Based on the Center for Health Development – Cordillera Administrative Region Masterlist of Drug Establishments (2008), a total of 100 community pharmacies or drugstores are operating in Baguio City and Benguet. Eighty-nine community pharmacists from these drugstores participated in this study.

Forty-six respondents, or 51.69% of the research participants, belonged to the youngest group of less than 26 years of age. This group is followed by those who belonged to the 26 to 30 years range, which included 26 respondents comprising 29.21%. The research participants

who were 31 to 35 years of age comprised 11 or 12.36%. The oldest group, with more than 35 years of age, included six participants or 6.74%.

Of the 89 respondents, 39 (or 43.82%) were employed in chain stores, while 50 (56.18%) were employed in independent companies. Majority of Baguio–Benguet community pharmacists were employed in independent drugstores or pharmacies.

There were 14 respondents with employment status of either chief pharmacist (15.73%) or owner (15.73%). There were 27 supervisors comprising 30.34% of the respondents, while there were 34 staff pharmacists comprising 38.20% of the respondents. Most of the community pharmacists from Baguio–Benguet were not owners or entrepreneurs but employees of chain or independent drugstores

Most of the respondents (67 or 75.28%) had less than six years of practice as community pharmacists. Fifteen of them (or 16.85%) had six to 10 years of community practice, and only seven (or 7.87%) had more than 10 years of practice as community pharmacist. Majority of Baguio–Benguet community pharmacists were relatively new to the practice of pharmacy in the community setting.

Questionnaire Development and Design. Records review (literature search and review of professional body policies and research documents) relating to the current and future roles of community pharmacists was undertaken. EBSCO database was utilized through the search terms “competence”, “capability”, “community pharmacy” and “competency standards”. In addition, Yahoo.com and Google.com were also used to search for relevant policy documents using the same search terms.

The national standards of pharmacy practice in the Philippines (Robles, 2008), CHED Memorandum Order No. 03, s. 2006 – Policies, Standards and Guidelines for Pharmacy Education (2006), and Philippine Pharmacists Association Standards for Pharmacy Practice in the Community and Hospital settings (2008) were used as a groundwork in identifying clusters or areas of (community pharmacy) competencies important to the Philippine setting. In addition, key indicators (behavioral statements) were also adopted from the latter and added to the preliminary list of competencies. All the other behavioral statements/ indicators relevant to community pharmacy practice were adopted from the Model Standards of Practice for Canadian Pharmacists

(2003), Resource Document (2003); Pharmacists and Primary Health Care (2004); ENRICH Program Manual: Competency Standards for Pharmacists in Australia (2005); Lee, Machado, Wenzel, Gagnon and Calomo (2005); Mills, Farmer, et al. (2005); Mills, Laaksonen, et al. (2005), Intern Portfolio (2006), and Professional Competencies for Canadian Pharmacists at Entry to Practice (2007).

The records review done by the researcher produced an initial list of competencies. Content validity was established by submitting the said list for review by pharmacists with expertise in community pharmacy practice, research and education. The review consisted of both quantitative and qualitative evaluation of the level of relevance of the competencies to Philippine setting. The experts were asked to rate the level of relevance of the competencies (units and subunits) based on the following scale: Very Relevant: 4; Relevant: 3; Somewhat Relevant: 2; and, Irrelevant: 1.

They also gave their comments and suggestions on overlaps between statements, inclusions and omissions. Furthermore, validity was established by computing the content validity index. With a computed index of 9.92, the content validity of the competency list is very high. These results, combined with the descriptive inputs of experts, led the researcher to further revise and refine the competency list.

The revised list was then formed into a questionnaire and pilot-tested to a group of community pharmacists from the province of Tarlac. Internal consistency method, particularly split-half procedure, was conducted with the tryout data. An over-all reliability coefficient of 0.82 was obtained, indicating high reliability of the instrument. The final questionnaire was used as the competency assessment tool for community pharmacists in Baguio-Benguet.

The final questionnaire is composed of two parts. The first part consisted of demographics and the second part consisted of different clusters, subclusters and behavioral statements/indicators through which the self-assessed competency level of community pharmacists was based. The questionnaire used the 4-point Likert scale with the following description and equivalents: Highly capable: 4; Capable: 3; Moderately capable: 2; and, Poorly capable: 1

Data gathering procedures. Through the assistance of the Baguio–Benguet Pharmacists Association, a lecture/seminar intended for gathering the data needed in this study was conducted to licensed community pharmacists from the locale of the study. During this event, the researcher personally conducted the orientation and administered the final questionnaire to the respondents who were made to understand the rationale of the said undertaking. Important considerations as to the mechanics in answering the questionnaire were reiterated. After the administration of the questionnaire, focused group interview was also conducted. Around 40% of the total number of respondents was able to participate. Community pharmacists who were not able to attend the seminar due to constraints in work schedule were in the same way personally oriented and given the questionnaire by the researcher at their respective work stations.

Data analysis. Data were tabulated, coded and analyzed using Microsoft Excel. Descriptive statistics was employed in determining the overall mean self–assessed competency level of community pharmacists from Baguio–Benguet. Inferential statistics particularly two tailed t–test and Analysis of Variance were used to determine if significant differences in mean self–assessed competency levels along the clusters (based on the subclusters) exist when community pharmacists were grouped according to age, type of company, employment status and length of practice. A follow–up Scheffe test, was used to find out where exactly these significant differences lie.

Results and Discussion

The competencies required of community pharmacists in the Philippines is clustered into four, with 12 subclusters and 134 behavioral indicators or statements.

- Management and Organizational Skills – management principles/ systems, organization and supervision, quality control
- Information, Communication and Education on Health Care and Medicines – information, communication, education and health promotion
- Dispensing and Ensuring Optimal Use of Medicines – prescription processing, communication, patient counseling

- Ethical, Legal and Professional Responsibilities – professionalism, continuing professional development/ lifelong learning, collaboration and teamwork

Table I. Over-all Means of Self-assessed Competency Level along the four clusters

Management and Organizational Skills Cluster	3.16
Information, Communication and Education on Health Care and Medicines Cluster	2.98
Dispensing and Ensuring Optimal Use of Medicines Cluster	3.01
Ethical, Legal and Professional Responsibilities Cluster	3.24

The overall average of 3.16 indicates that pharmacists were “capable” along Management and Organizational Skills Cluster. Specifically, they showed “high capability” in Quality Control (3.74) and “capability” in Organization and Supervision (3.12) and Management Principles/ Systems (2.97). Relatively, however, they had the lowest self-perceived competence in the last sub-cluster mentioned.

Pharmacy has evolved from a profession of individual practitioners/ owners to one of employees who, per se, were managed instead of being managers (Gennaro, 1990). Community pharmacy has two main goals that must always be in balance: to care for patients and to earn profit to sustain the business. Community pharmacists from Baguio–Benguet perceived themselves lacking the needed competence in addressing the latter goal. This could be attributed to factors such as: the pharmacy curriculum had not been able to focus on competencies needed in managing drug establishments; and, related seminars or trainings for community pharmacists were inadequate.

The overall average of 2.98 descriptively shows that they were “capable” on Information, Communication and Education on Health Care and Medicines cluster. The respondents were “highly capable” in terms of Communication (3.24), whereas they were “capable” in terms of Information (2.99) and Education and Health Promotion (2.71). Relatively, they had the lowest self-perceived competence in the last sub-cluster mentioned.

According to Wiedenmayer (2007), pharmacists were hardly ever mentioned as key health professional, the importance of pharmacists in the healthcare sector is underestimated, particularly in developing countries. A significant proportion of community pharmacists' knowledge and skills is wasted and remains untapped for public health and patient care.

The overall rating of 3.01 implies that practicing pharmacists were "capable" along Dispensing and Ensuring Optimal Use of Medicines. Specifically, they were "highly capable" in terms of Prescription Processing (3.35), whereas they were "capable" in Patient Counseling (2.91) and Communication (2.78). Relatively, they had the lowest self-perceived competence in the last subcluster mentioned.

Wiedenmayer (2007) stressed that "the traditional role of pharmacists is to manufacture and supply medicines." More recently, pharmacists have been faced with increasing healthcare demands: an ever-growing and complex range of medicines and poor adherence to prescribed medicines has forced the evolution of the pharmacist's role into a more patient-centred approach. The role of the pharmacist should be evolving from that of a compounder and supplier of pharmaceutical products towards that of a provider of services and information and ultimately that of a provider of patient care. However, pharmacists in practice today were mainly educated and trained according to the old paradigm of product focus. If they were to contribute to patient-centered pharmaceutical practice effectively, they need to be given the opportunity to acquire the new knowledge and skills required for their new role.

Compounding and dispensing were considered to be the traditional responsibilities/functions of pharmacists hence they exhibited a high level of competency in this area. In as much as Baguio-Benguet community pharmacists would want to be highly competent in other essential areas such as patient counseling and communication skills, the interplay of factors as a barrier beset them (FGI, September 2008).

"The number of customers we serve determines our performance."

"Our suggestions may not be entertained though essential. The management always has the last say."

"We need to be trained on this."

"There is a need to uplift the remuneration we receive."

This could be related to an FDA and a Drug Topics Survey conducted in late 1980s which found out that approximately 75% of the pharmacists surveyed said they would prefer to spend more time advising patients. They noted that the other duties which prevented them from doing so included too many prescriptions to dispense, pharmacy design or pharmacy policy that discouraged consultation; not feeling relaxed in communicating with patients or a perceived lack of interest by patients. In addition, there was also a lack of mandatory pharmacists' counseling regulations that would support an incremental fee structure to encourage counseling (Gennaro, 1990).

With an overall average of 3.24, community pharmacists perceived themselves to be able to do the mentioned activities or behaviors competently 75% of the time. Specifically, they showed "high capability" on Professionalism (3.48), "capability" on Continuing Professional Development/Lifelong Learning (3.21) and Collaboration and Teamwork (3.03). Relatively, they had the lowest self-perceived competence in the last sub-cluster mentioned.

As posited by the International Pharmaceutical Federation (FIP) (2002), Austin et al. (2005) mention that "Maintaining competence throughout a career during which new and challenging professional responsibilities will be encountered is a fundamental ethical requirement for all health professionals. Patients have a right to be confident that professionals providing health care remain competent throughout their working lives."

The possible reasons why community pharmacists from Baguio-Benguet relatively lack the competence along subclusters CPD/LLL and Collaboration and Teamwork could be based on the claim of Austin et al., (2005). They found out in their study that "isolation inherent in community pharmacy practice; and the lack of peer modeling and benchmarking opportunities emerged as a significant problem for pharmacists. As described by many of them, pharmacy is a lonely profession. In part, the competitive nature of the business of pharmacy undermines attempts to collaborate. In addition, the structure of community pharmacy is such that pharmacists tend to work alone or with technical (rather than professional-peer) support."

When grouped according to age, significant difference is observed at subclusters, management principles/ systems and; education and health promotion:

Management principles/systems. The computed F value of 8.995 is greater than the tabular F value of 2.872, which led to the rejection of the null hypothesis at 5% level of significance. Further statistical test using the Scheffe test revealed that the significant differences of opinions are present between the <26 group, with their relatively lowest factor average of 2.75 and those of the 31-35 group and the > 35 group with their factor averages of 3.38 or “highly capable” and 3.20 or “capable,” respectively. The 26-30 group gave a factor average of 3.12 or “capable.”

Education and health promotion. The null hypothesis was rejected at 5% level value of 2.824. The Scheffe test revealed that ratings given by the 31-35 group (factor average = 3.14) were significantly higher compared to the <26 and the 26-30 groups with factor averages of 2.62 and 2.69, respectively.

Further, significant difference is observed in all subclusters under Dispensing and ensuring optimal use of medicines. Scheffe test revealed that the <26 group (factor averages = 3.23; 2.62) has significantly lower self – perceived level of competence than the 31 – 35 group (factor averages = 3.59, 3.17); in *prescription processing* and *communication*. The <26 (factor average = 2.62) and the >35 groups (factor average = 2.76) have significantly lower self – perceived competence than the 31 – 35 group (factor average = 3.14) in *education and health promotion*.

The older practitioners, particularly those belonging to the 31 -35 group, were shown to perceive themselves as highly competent while younger practitioners (<26), relatively lacking the competence along the four competency clusters. The results did not conform to the results of the study of Mills, Laaksonen et al. (2005) which found out that younger pharmacists perceived themselves to be more competent along “service provision” in the management and organization cluster than older pharmacists.

However, based on the results of this study, competence (above the age of 35) was shown to be declining partly because at this age, community pharmacists became more concerned with the business side

of community pharmacy practice, leaving the professional side of it to the relatively younger practitioners (more often, without pre-employment guidance and training or mentoring), whom they would consider as more enthusiastic to learn about the practice and more updated with regard to the current trends in the profession (FGI, September 2008). As cited by Chan and Auster (2001), Fossum and Arvey (1990) and Fossum et al. (1996) point out that professional commitment has been identified as a possible factor in maintaining competence. Furthermore, according to Mills, Laaksonen et al. (2005), the older pharmacists have to focus on running a successful business than on being updated on their clinical knowledge. It is assumed that in order to maintain competence in a profession, workers must undertake various learning activities to sustain their ability to function effectively in the profession (Chan & Auster, 2001). Rix (1996) (as cited in Chan & Auster, 2001) mentions that the aging of the workforce is a reason for the obsolescence of skill and the resultant loss of productivity and competitiveness. Older workers (45 years of age and over) were considered at risk for obsolescence. Similarly, Hassell and Perrewe (1995) say that older workers were seen as resistant to change, less interested in challenging jobs, and a poor investment for training.

When grouped according to type of company, rejection of the null hypothesis at 5% level of significance is evident; significant difference is observed at subclusters management principles/systems; organization and supervision; information; education and health promotion; patient counseling; CPD/ LLL. Consistently, the chain store group has lower self-perceived competence than the independent group.

Baguio-Benguet community pharmacists categorized under the independent type of drugstores perceived themselves to be more competent along the four competency clusters than their colleagues in the chain drug stores. The results did not conform with the results of the study by Mills, Laaksonen et al. (2005), which showed that community pharmacists working in chain drugstores perceived themselves to be more competent than their colleagues in the independent drugstores along four clusters: Delivery of patient care (except in subcluster, need for drug), Personal, Problem solving and, Management and organization competency clusters. The main contributory factor to these results is their participation in Continuing Professional Development (CPD) because according to the Royal Pharmaceutical Society of Great Britain, “engaging in CPD would make pharmacists more confident and professional in their approach to

patients” and “engaging in CPD would make pharmacists more confident in their approach to other health care professionals.” In addition, company policies in pharmacy chains may influence pharmacists’ competence in these areas. The company may require their employees to keep a CPD record and the employees may have regular appraisals of their learning needs with their managers, whereas pharmacy owners and employees in independent pharmacists may lack these. In the Philippines, CPD as a means of ensuring the competence of members – a viable model for individualized ongoing learning and personal improvement – is not concretely in place.

When grouped according to employment status, significant difference is observed at subclusters management principles/systems and professionalism.

Management principles/systems. The computed F value of 4.565 is greater than the tabular F value of 2.872, which led to the rejection of the null hypothesis at 5% significance level. Scheffe test revealed that the self-ratings given by the Owners group (factor average = 3.23) was substantially higher compared to the ratings given by the Chief Pharmacists (factor average = 2.81) and Staff Pharmacists groups (factor average = 2.83)

Professionalism. The computed F value of 18.057 is greater than the tabular F value of 2.824. Scheffe test further revealed that considerable differences of opinions were obvious between the chief pharmacists, whose scores were substantially higher (factor average = 3.70) compared to the other three groups. Also different were the scores given by the supervisors, whose self-ratings were significantly lower (factor average = 3.34) compared to the staff pharmacists (factor average = 3.53).

The owners had the highest perceived level of competence in managing a drugstore business, whereas employees (chief and staff pharmacists) in general had the highest perceived level of competence under professionalism subcluster. Issues on professionalism usually arise (most especially for owners/managers/supervisors) when faced with a clash of interest between caring/serving patients or making profit to sustain the business. In relation to this, according to Myers and Montagne, as mentioned in Chapter Three of Remington’s Pharmaceutical Sciences (1990), adherence to the ethics of pharmacy by a practitioner is an example of enlightened self-interest, through which the profession as

a whole advances and each practitioner benefits. Lack of knowledge or ignorance on the part of the practitioner of the meaning of pharmacy's ethical precepts, and his/her concentration on short-run goals are the reasons why this enlightened self-interest does not always occur.

When grouped according to length of practice, significant difference is observed at subclusters management principles/ systems and professionalism.

Management principles/systems. The computed F value of 8.329 is greater than the tabular F value of 3.360, which led to the rejection of the null hypothesis at 5% level of significance. Scheffe test further revealed that the scores given by the <6 group were substantially lower (factor average = 2.88) compared to the >10 group (factor average = 3.34). The 6-10 group gave a factor average of 3.15.

Professionalism. The computed F value of 21.600 is greater than the tabular F value of 3.293. The null hypothesis was rejected at 5% level of significance. The Scheffe test validated that large dissimilarities exist between the >10 group, which gave substantially the lowest marks (factor average = 3.24) compared to the 6-10 group (factor average = 3.60) and the <6 group (factor average = 3.47) who gave relatively the highest marks.

It is only under the Management and Organization Skills Cluster that Baguio-Benguet community pharmacists with more than 10 years of practice scored the highest (very focused on running the pharmacy as a business). Along the other areas, community pharmacists with six to ten years and those with <6 years of practice significantly scored the highest and the lowest, respectively.

According to Paloniemi (2004), the role of work experience is prominent in the acquisition of practical skills and knowledge required in specific occupation and job-tasks knowledge related to the work community and organization, and knowledge that helps one to assess one's organization, and work and ways of working and acting. Moreover, work experience is significant in competence development. It was reported as helpful in focusing on relevant information, in understanding theoretical knowledge, and in maintaining and increasing one's learning motivation.

The mean self-ratings of community pharmacists in all behavioral indicators under the four competency clusters were arranged from the highest to the lowest value, and the bottom 50 were given the utmost priority. The evolved framework specific for Baguio–Benguet community pharmacists is composed of these 50 weakest competencies with their corresponding proposed interventions and strategies, and target group.

Conclusion

Younger staff (in age and in practice) and chief pharmacists (most especially those who are in chain drug stores) need to have a supportive work environment so they can continuously grow professionally and enhance their knowledge, skills and attitudes. Curricula also need to be revisited to accommodate important aspects of practice of pharmacy in community setting (e.g., management principles/systems, education and health promotion). On the other hand, the oldest community pharmacists (in age and in practice) also need to update their pharmaceutical knowledge and skills, and respond and adapt to the changes being introduced in the profession. They must also learn to become mentors or coaches to neophytes along the areas of management and organization of a pharmacy. Further, they must also be reawakened in their ethical, legal and professional responsibilities.

The evolved framework could be used by community pharmacy practitioners (through their professional organizations) to help them solidly identify their learning needs and thereby greatly help facilitate their professional development. CPD programs must be tailored to the competency needs of the pharmacists in a specific area of practice and location. This could also be used in creating a competency-based assessment process for the experiential component of a pharmacy education degree program, similarly done by Hill, Delafuente, Sicat and Kirkwood (2006). More importantly, this could be used in actively reaching up to inform and influence the conceptual (policy) level, and in coming up with stronger legislation and regulation in the practice of pharmacy in the community setting (e.g., mandatory pharmacists' counseling regulations; pharmacy graduates primarily tapped as frontliners/pharmacy assistants; and mandatory training for frontliners prior to deployment).

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