



Current Practices and Perceptions on Pharmaceutical Care of Hospital Pharmacists in Metro Manila

Agaceta, Cristan C*. Diano, Gilberto T. Lintag, Patriz Miga P. Loquias, Monet M.
University of the Philippines College of Pharmacy Valenzuela Hall, Taft Ave. Ermita, Manila

Research Article

Please cite this paper as: Agaceta, Cristan C*. Diano, Gilberto T. Lintag, Patriz Miga P. Loquias, Monet M Current Practices and Perceptions on Pharmaceutical Care of Hospital Pharmacists in Metro Manila. IJPTP, 2013, 4(4), 821-825.

Corresponding Author:

Agaceta, Cristan C

University of the Philippines College of Pharmacy
Valenzuela Hall, Taft Ave. Ermita, Manila

Email: yki.stan@gmail.com

Phone no: +639274653499

Abstract

Objective: The objective of this study is to determine the current practices of hospital pharmacists in Metro Manila and their perceived levels of understanding, competence, importance and practicability of the pharmaceutical care practice in the Philippines. Furthermore, it also aims to compare the difference among the perceptions of pharmacists working in private hospitals and pharmacists working in government hospitals.

Method: A cross-sectional, correlational research design was employed using survey as data collection method. Wilcoxon Sign Rank Test of the sum scores was used to determine the perceptions in each practice setting for the current pharmacy practice. The difference between the perceived levels of importance in performing patient care related activities was expressed through Wilcoxon Sign Test.

Results: A total of 197 pharmacists from 17 hospitals in Metro Manila participated in the study.

Lack of support by physicians and other health professionals and lack of information technology support for data collection and documentation were identified as the perceived major barriers to the implementation of pharmaceutical care.

Conclusion: These results could implicate that the slow progress of pharmaceutical care in the Philippines may be attributed to the low understanding and perceived barriers identified. There is a need to explore additional factors affecting the provision of pharmaceutical care in order to successfully promote pharmaceutical care in the Philippines.

Keywords: *Pharmaceutical Care; Hospital Pharmacy; Perceptions; Pharmacy Practice; Current*

Introduction

The pharmacy profession is currently undergoing the process of shifting the roles of a pharmacist from a product-oriented view to a patient-oriented practice. Hepler and Strand in 1990, defined pharmaceutical care as "the responsible provision of drug therapy for the purpose of achieving definite outcomes that improve a patient's quality of life"^[1]. It is considered as pharmacy's opportunity to mature as a profession by accepting its social responsibility to reduce preventable drug-related morbidity and mortality^[2].

The pharmaceutical care process implies changes in all the health care process offered by pharmacists. As an innovative professional practice, this often produces reluctance among professionals. In order to be successful in the implementation of the programs promoting pharmaceutical care, the pharmacist's philosophy of the practice is a vital requirement. Other researches indicate that many pharmacists feel confused with the new practice paradigm, and believe that the provision of pharmaceutical care services has a limited impact on therapeutic outcomes.^[2]

It is important that pharmacists develop a common, solid foundation for its professional practice. Often, there are individuals who insist that they do pharmaceutical care when all evidence indicates that what they are actually doing is only a variation on a vague theme of counselling^[3].

In a study conducted by Sarriff et. al. in 2011, they have developed and assessed an instrument that explores the pharmacists' perceived practicability, importance and their competence towards achieving and developing pharmaceutical care. The findings reveal that the questionnaire produced good internal consistency and is a reliable tool to assess the perceived skills of pharmacists. In the follow up cross-sectional study in Malaysia, they explored the community and hospital pharmacists' understanding and perceptions on the philosophy of pharmaceutical care and barriers to its provision, and also the current pharmacy practice. Results showed that hospital pharmacy respondents showed higher perceptions of importance and competence on most of the pharmacy practice



activities than their counterparts in the community^[4].

One of the regional priority areas on GPP policy and plans in the South East Asia region is to change the perception of the role of pharmacists within the profession. Therefore, it is of importance to determine the perceived levels of understanding, importance, practicability and competencies on pharmaceutical care practices among hospital pharmacists since they play a fundamental role in the execution of the pharmacy practice in the Philippines. Recent studies have worked on the perspectives of physicians, pharmacy students, and patients to the practice of pharmaceutical care. However, the determination of the level of understanding, importance, practicability and competencies of pharmacists is needed for the implementation, improvement and progression of the current pharmaceutical care system in the Philippines.

The main objective of this study was to assess the level of understanding, importance, practicability and competencies on pharmaceutical care practices among hospital pharmacists in Metro Manila. This study also identified and compared the current practices of hospital pharmacists

Material and Method

This study employed a cross-sectional, non-experimental design which involved the collection of data through self-administered questionnaires from hospital pharmacists in selected level 3 and level 4 government and private hospitals in Metro Manila.

The survey questionnaire used is adapted from the studies conducted by Sarriff, et. al. in 2011 which measured the perceived level of understanding, importance, competency, and practicability of pharmaceutical care practices among hospital pharmacists and community pharmacists in Malaysia^[4]. According to the authors the colors light blue and light green are more soothing to the eyes of the respondents than the traditional black and white. Thus, to improve the questionnaire's attractiveness, these colors were used for the private and government hospital pharmacists, respectively. This also served as a color code to classify the questionnaires easily. In addition, the questionnaires were coded according to the hospital institution where the survey is conducted.

To ensure organization of thought, the questionnaire was structured such that it consists of different sections, as follows: *Section one* – Demographic Characteristics; *Section two* – Concept of Pharmaceutical Care; *Section three* – Current Pharmacy Practice; *Section four* – Perception towards achieving and developing Pharmaceutical Care. A pilot test was conducted to five pharmacists each for private and government hospitals to determine the questionnaire's applicability, relevance and clarity of statements to the Philippine setting.

Descriptive statistics was used to summarize the data and organize them into groups according to the sections of the questionnaires. Inferential analysis was used to generalize the findings to the population under study (hospital pharmacists in Metro Manila).

In order to determine the perceived level of importance and competence in performing the current pharmacy practice, the

sum of the scores per category (management, dispensing, patient care and public health) were obtained from the results of the 5-point Likert scale. Wilcoxon Sign Rank Test of the sum scores were done to determine the perceived level of importance and competence in each practice setting for each activity of the current pharmacy practice. The sum scores were compared to low level of perceived importance and competence (e.g. 1-19 for Management Activities). Wilcoxon Sign Test was specifically performed in the determination of the difference between the perceived levels of importance in performing patient care related activities (One-tailed Test).

The values of the rating scores on three out of fifteen statements of section 2 were inversed to make the tone of the statements uniform for data analysis. The mean scores for each statement were obtained as well as the mean total score for the whole section. The normality of the distribution of scores was analyzed using Kurtosis test. The mean scores of the whole population was analyzed using Wilcoxon Sign Rank Test. Differences in in the total mean scores across groups (type of hospital, sex, age, educational attainment, attendance to seminars) were analyzed using t-test for independent samples. The same analysis was conducted for section 4.

Results

Of the 33 hospitals requested to participate in the study, 17 have confirmed to participate in the study representing 51.5% response. Out of these 17 hospitals, 10 were government and 7 were privately owned. Due to the differences in administrative and research policies per hospital institution, the number of participants per hospital depended on the number allowed by the administrative and research offices. The final sample size consisted of 197 questionnaires, representing a total of 69.6% response rate.

Majority of the respondents were female, aged 21-30 years old with a Bachelor's degree in Pharmacy, and have been working as a hospital pharmacist for about 1-5 years. One important observation seen was that hospital pharmacists in the private setting have relatively younger population than those in the government setting. As such, hospital pharmacists in the government setting generally also have greater number of years of working experience as hospital pharmacist. The feminization of the pharmacy profession has been a worldwide issue since the late 1990s. The case of females occupying at least two third of the proportion of the pharmacy workforce is not uncommon in various countries, and the trend has even been increasing in some countries and the Philippines is no exception^[5].



Current Pharmacy Practice

All of the respondents indicated that they are performing the current pharmacy practice activities under management, dispensing, patient care, and public health. The proportion of hospital pharmacists performing the current pharmacy practice activities is shown in Table 2. Among the current pharmacy practice activities, dispensing was mostly performed while public health activities were the least performed in both practice settings. Table 3 presents the hospital pharmacists' perceived level of importance and competence in performing the current pharmacy practice activities. Hospital pharmacists from both the government and private settings perceive management, dispensing, and patient care activities to be important and that they are competent in performing the said activities ($p < 0.001$). The respondents from the private hospitals showed higher perceived level of importance in performing the patient care activities ($p = 0.0033$, Wilcoxon Sign Test).

Perceptions on Pharmaceutical Care

The results showed that generally there is a low perceived level of understanding the concept of pharmaceutical care among the respondents. Only 50.25% have correct perceived levels of understanding the pharmaceutical care concept (total mean score of 60 or higher). The respondents have high perceived levels of importance but deem themselves to have low competencies in performing pharmaceutical care. Table 4 summarizes the mean scores for the perceived levels of understanding pharmaceutical care practices.

The respondents generally have low scores on statements regarding the notion of pharmaceutical care being the same as medication counselling services and clinical pharmacy. Pharmacists generally believe that pharmaceutical care is just the same as medication counselling and clinical pharmacy. Also, hospital pharmacists have a misconception that in order to provide pharmaceutical care services in the Philippines, a post-graduate degree is required.

Private hospital pharmacists, have relatively higher perceived level of understanding, importance, and competency as compared to their counterparts. Likewise, it was seen that males, older respondents, B.S. graduates, pharmacists who attended seminars and those who have been practicing for longer years generally have higher perceived levels of understanding the pharmaceutical care concept. Table 5 summarizes the differences in the total mean scores in the perceived level of understanding the pharmaceutical care concept across different subgroups.

Based on the results in Table 6, pharmacists perceived pharmaceutical care activities as an important practice for the profession. However, it was found that pharmacists believe that creating a therapeutic plan based on the patient's interest was the least important aspect of pharmaceutical care. Consequently, they also perceived this as the least practicable aspect of pharmaceutical care and that they were least competent to perform this task. The results actually showed that pharmacists, in general, have low perceived levels of competency in performing pharmaceutical care activities

although they believe that such services would still be practicable in the Philippines.

Discussion and Conclusion

Current Pharmacy Practice

The relatively low percentage of pharmacists performing the different activities can be attributed to the wide distribution of areas where they are assigned. Hospital pharmacists may be concentrated in their particular area of practice, therefore limiting the chances of engaging in other activities. Between the two practice settings, respondents from the government hospitals have higher proportion of pharmacists performing different pharmacy activities. This may be due to the differences in the programs and policies implemented in the hospitals, as well as the difference in the number of pharmacy departments where the pharmacists are rotated.

The respondents from both practice settings regarded management activities to be highly important and that they are competent in performing these activities. There was also a high perceived level of importance and competence in performing dispensing activities since drug products and dispensing commodities continue to remain as the primary reason for the existence of the pharmacy profession. This is consistent with the study by Sarriff et. al. in 2011 which showed that dispensing activities are performed by a high proportion of hospital pharmacists (85%). This may serve as a barrier towards the shift of the profession from a product-oriented approach to a patient-centred practice^[4].

Among the current pharmacy activities, the respondents had a low perceived level of importance and competence in performing public health activities. This is consistent with the study conducted by Salenga et. al. in 2009 wherein only 36.4% of the pharmacists perceived that they are competent in performing public health activities. This may be due to the state of public health pharmacy practice in the country. Competency of pharmacy schools to provide expertise on public health^[5], low-profile status of pharmacists in the field of public health, "little other than personal motivation to encourage individual pharmacists to obtain expertise in public health", and tight control of resources in the public sector are some of the factors that may affect the perception of hospital pharmacists on their level of competency and the level of importance to provide public health activities^[6]. This therefore implies that more strengthening is needed to engage pharmacists in public health-related activities. Hence, pharmacists lack involvement in performing the macro level (planning) and micro level (implementation) public health services.



The higher level of perceived importance in performing patient-care activities of pharmacists from the private hospitals may be attributed to the varied programs and trainings implemented in practice settings.

Perceptions on Pharmaceutical Care

Generally, hospital pharmacists have a low perceived level of understanding the concept of pharmaceutical care. It may be assumed that the practice in Metro Manila represents the best in the country, and so the low result poses a very important concern. In order to be successful in implementing pharmaceutical care services, it is fundamental that the pharmacist changes the way of understanding the practice^[2]. The relatively low perceived level of understanding the concept of pharmaceutical care is not a good indication of the progress of the practice in the country.

Likewise, many of the pharmacists believe that a post-graduate degree is a requirement to provide pharmaceutical care in the Philippines. Consistent with the observation of Strand and colleagues, there was a perceived need that more drug information, pharmacology and pharmacotherapy was essential before any pharmaceutical care intervention could take place. Although there is no claim that additional knowledge of any kind is unnecessary, the point is that the first step in performing pharmaceutical care is to understand the practice. This would require the development of a cognitive map that enables the application of knowledge to problem resolution and conceptualization of the nature of the practice itself. When the practice begins, knowledge combined with accumulated experience shall find its placement. In fact during their experimentations, a comprehensive, eight-week training program was already sufficient to achieve the effective transformation needed by practitioners^[3]. It is important to note that the Philippines has not yet prescribed any standard requirement, training and qualifications for providing pharmaceutical care.

Moreover, it is also consistent with the observation of Strand (2004), that pharmacists sometimes confuse pharmaceutical care as a variation on a vague theme of counselling. To elaborate further, an intervention can be considered to be pharmaceutical care if it includes the following as minimum: one-on-one consultation between a patient and a pharmacist with a focus on managing health or resolving drug related problems; development of a care plan; & pharmacotherapy follow-up & documentation. Pharmaceutical care, therefore, extends beyond just mere counselling services.^[3]

Generally, hospital pharmacists deem that pharmaceutical care activities are important but they are not competent enough to perform these activities. This may be attributed to the fact that a good understanding of the practice is a prerequisite to one's competence. Among the different activities, frequent direct contact with patients to have a desired therapeutic goal reflecting the patient's interest, and coming up with therapeutic goal based on the patient's wishes and priorities were identified to be the least practicable activities in the current status of the practice. This may be due to the fact that most patients are not used to the pharmaceutical care services, and therefore do not engage or adhere to such activities. Even more, many people may not be

aware of pharmacists offering this service. Pharmacist will not be recognized unless patients realize the benefits from the services they offer.

Another interesting observation was that males have higher perceived levels of understanding the pharmaceutical care concept than females. This finding is consistent with the results obtained by Binos, et. al.(2011) where Filipino male pharmacy students were more confident with their abilities and competencies in performing pharmaceutical care^[7].

It can also be noted that, contrary to the hypothesis, hospital pharmacists who have been newly practicing have lower perceived level of understanding, on pharmaceutical care practices. Sarriff et al. in 2011 attributed the higher perceived levels of understanding the pharmaceutical care concept among younger population in Malaysia to the recent introduction of pharmaceutical care in the curriculum of the pharmacy in Malaysia^[4]. This should also hold true for the Philippines, but the result may be also attributed to the fact that usually, senior hospital pharmacists are more engaged into different trainings and seminars. Consequently, the results revealed that respondents who attended seminars have higher perceived level of understanding than those who do not.

The concept underlying pharmaceutical care extends the roles of a pharmacist from being a source of drug information to being the primary responsible for the drug therapy outcome of a patient. Pharmacist must have, first and foremost, a deeper understanding of the concept of pharmaceutical care in order to successfully translate the concept into practice.

It is important that the Philippines create a standard guideline on the qualifications of hospital pharmacists in the provision of pharmaceutical care and increase their competencies through trainings to harmonize the professional practice in the country.

Acknowledgement

This project will not be accomplished without the help and contributions of significant people. The researchers, then, humbly thank the different heads of the different pharmacy departments of the hospitals included in the study which allowed the researchers to implement their survey

References

1. Hepler CD, & Strand LM. Opportunities and responsibilities in pharmaceutical care. *Am J Hosp Pharm.* 1990; 47(3): 533-543.
2. Martín-Calero MJ, Machuca M, Murillo MD, et al. Structural Process and Implementation Programs of Pharmaceutical Care in Different Countries: Current



Pharmaceutical Design [Internet].2004. Available from:

<http://www.gastelurrutia.com/pdf/2004b.pdf>.

3. Strand, LM, Cipolle, RJ, Morley, PC, & Frakes, MJ. The Impact of Pharmaceutical Care Practice on the Practitioner and the Patient in the Ambulatory Practice Setting: Current Pharmaceutical Design. [Internet]. 2004; 31(6). Available from <http://flexiblelearning.auckland.ac.nz/pharmacy712/12/strand-review-pc-currpharmdesign-2004.pdf>.

4. Sarriff, A. Gillani, WS, & Babiker, GA R.M. Development and Reliability Assessment of Trilogy Scale of Practicability, Competence & Importance of Patient-Oriented Services: International Journal of Collaborative Research on Internal Medicine and Public Health. [Internet]. 2011; 3 (6). Available from: <http://www.iomcworld.com/ijcrimph/files/v03-n06-06.pdf>.

5. Salenga, RL. Community Immersion in Rural Philippines for Pharmacy students in Community Pharmacy Internship Course: Journal of the Philippine Pharmacists Association.2009;2(1):27-34.

6. Capper, S.A., Sands, C.D. The Vital Relationship Between Public Health and Pharmacy: The International Journal of Pharmacy Education .[Internet] 2006; 2 Available from: <http://www4.samford.edu/schools/pharmacy/ijpe/206/capper.pdf>

7. Binos, RSR, Lara, KP, Yu, AHC, & Loquias, MM. Perceptions of Pharmacy Students in Metro Manila towards their Preparedness to Provide Pharmaceutical Care: International Journal of Pharmacy Teaching & Practices. [Internet]. 2011;2: 102-107. Available from <http://ijptp.iomcworld.com/files/Kartice%20P.%20Lara%20Article.pdf>

AUTHORS' CONTRIBUTIONS

Authors contributed equally to all aspects of the study.

PEER REVIEW

Not commissioned; externally peer reviewed.

CONFLICTS OF INTEREST

The authors declare that they have no competing interests.