



KNOWLEDGE AND ATTITUDES ON PATIENT COUNSELING AMONG PHARMACISTS AT STATE HOSPITALS IN CENTRAL PROVINCE, SRI LANKA.

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Patient counseling is an important aspect of healthcare, particularly in pharmacy practice. Effective patient counseling can improve medication adherence and reduce adverse effects. This study aimed to assess the knowledge and attitudes of pharmacists toward patient counseling in state hospitals in Central Province, Sri Lanka. A cross-sectional study was conducted among pharmacists working in state hospitals in Central Province, Sri Lanka. A self-administered questionnaire was used to collect data on the knowledge and attitudes of pharmacists toward patient counseling. A total of 119 pharmacists participated, with a majority of the pharmacists (81%) having obtained the Diploma of Pharmacy offered by the Ministry of Health, while 9% had a degree qualification in pharmacy and 9% had other degrees as their highest educational qualification. A large proportion (69%) of the pharmacists had more than 10 years of experience working as hospital pharmacists. The study identified multiple factors that prevented pharmacists from engaging in patient counseling, including lack of knowledge (60%), not updating on drug information (67%), and high patient load (82%). Despite these barriers, 99% of pharmacists agreed that patient counseling was one of the duties of pharmacists. Only 38% of the pharmacists responded that they would feel embarrassed if they did not know how to answer questions from patients. These findings suggest that pharmacists may feel comfortable seeking additional information or resources to improve their knowledge and better serve their patients. The majority of the pharmacists had positive attitudes toward patient counseling, with some gaps and barriers identified. Efforts should be made to address the identified barriers, such as providing more training and resources, updating drug information, and managing patient load, to improve patient counseling services. Additionally, strategies to promote continuing education and professional development may be useful in enhancing the knowledge and skills of pharmacists. Overall, this study highlights the importance of patient counseling as a key responsibility of pharmacists in promoting optimal patient outcomes and underscores the need for ongoing efforts to support pharmacists in this vital role.

Keywords: Knowledge, Attitudes, Patient Counselling, Pharmacists, Hospitals

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THE KNOWLEDGE AND ATTITUDES ON PATIENT COUNSELLING AMONG PHARMACISTS AT STATE HOSPITALS IN CENTRAL PROVINCE, SRI LANKA

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INTRODUCTION

Patient counseling plays a crucial role in pharmacy practice (Damasceno, 2016). Pharmacists are responsible for the therapeutic treatment outcomes of their patients, and they can directly impact the management outcomes by providing medication counseling to assist patients with the medication use process. Before dispensing medications, pharmacists should verify the accuracy of the drug supply at the counter. Patients who received pharmacist consultations before taking medication exhibited significantly better medication adherence compared to those who did not (Taitel, Jiang, Rudkin, Ewing, & Duncan, 2012). Pharmacist-mediated counseling promotes better knowledge, attitudes, and behaviours among patients, leading to more successful disease management. The "Good Pharmacy Practice" (GPP) guidelines of the National Medicine Regulatory Authority of Sri Lanka in 2019 specifically address the development of professional counseling strategies (*Guideline on Good Pharmacy Practice (Gpp)*), (2019). As the last contact professional before the patient consumes medication, pharmacists have a role in checking for drug allergies, recalling the messages regarding the appropriate use of medicines, ensuring adequate monitoring, providing guidance on adverse drug effects as well as drug interactions, and improving patients' medication adherence (Sakeena, Bennett, & McLachlan, 2019). In Sri Lanka, the government is the primary supplier of healthcare. It pays for 50% of outpatient care and 95% of inpatient care, and almost all medical services are free at state hospitals. Pharmacists are essential members of the healthcare team who make sure that patients receive high-quality medical care. The purpose of this study was to assess pharmacists' knowledge and attitudes regarding patient counseling at public hospitals in Central Province, Sri Lanka.

METHODOLOGY

A descriptive cross-sectional study was conducted using a purposive sample of 137 hospital pharmacists working at 6 government hospitals (National Hospital- Kandy, Teaching Hospital- Peradeniya, District General Hospital- Nuwaraeliya, Sirimavo Bandaranayake Children's Hospital-Peradeniya, District General Hospital- Matale, and Base Hospital- Gampola) in Central province of Sri Lanka. Ethical approval was obtained from the Ethics Review Committee at the Open University of Sri Lanka. A self-administered questionnaire was used to collect the data on pharmacists' knowledge and attitudes toward patient counseling. Data analysis was performed using IBM SPSS (Version 25) software.

RESULTS AND DISCUSSION

The study included 137 hospital pharmacists, out of which data from 119 pharmacists were analysed after removing 28 incomplete questionnaires. The demographic characteristics are shown in Table 01. The highest professional qualification of the majority of the respondents (81%) was the Diploma of Pharmacy offered by the Ministry of Health. Most of the participants were female (58.5%). A majority (69%) of hospital pharmacists had over 10



years of experience. In contrast, a similar study conducted in Malaysia found that only 9.7% of hospital pharmacists had more than 10 years of experience (Al-Tameemi & Sariff, 2019).

Knowledge of hospital pharmacists on patient counseling

Almost all pharmacists (99%) agreed that patient counselling is one of their responsibilities. Similar findings have been reported from a study conducted on attitudes and behaviours of community pharmacists on patient counselling in India “as patient counselling is a professional obligation”(Adepu & Nagavi, 2009). Majority of pharmacists (97%) believed that pharmacists themselves should be involved in patient counselling, indicating a high level of self-awareness and responsibility for the role of counselling. An understanding of the importance of a collaborative healthcare approach was shown by responding that physicians (73%) and nurses (66%) should also be involved in patient counselling.

Table 01: Socio-demographic characteristics of participants (N=119)

Characteristics	Category	Responded number (%)
Sex	Female	69 (58.5)
	Male	49 (41.5)
Age (In years)	20 – 29	4 (3.4)
	30 – 39	48 (40.7)
	40 – 49	36 (22.8)
	>=50	15 (30.5)
Highest educational qualification	Diploma in Pharmacy by Ministry of Health	96 (80.7)
	Degree in Pharmacy	11 (9.2)
	Other Degree	11 (9.2)
	Postgraduate	1 (0.8)
Duration of service in the hospital	3 months to 1 year	2 (1.7)
	1 to 5 years	12 (10.1)
	5 to 10 years	23 (19.3)
	More than 10 years	82 (68.9)

Regarding the sources of information for updating knowledge, internet sources were the most popular choice for updating knowledge (94%), followed by formularies and guidelines (91%), reflecting the growing significance of online resources in the healthcare field. Other healthcare professionals, drug information bulletins, and leaflets were also considered reliable sources of information for updating knowledge (Figure 01).

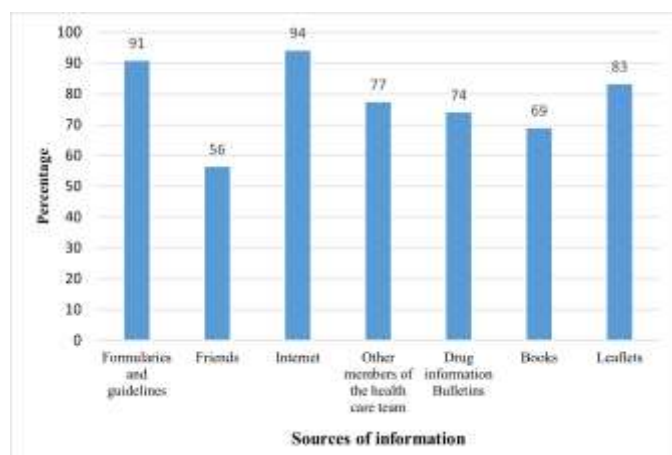


Figure 01: Sources of information pharmacists can use to update the knowledge for patient counselling.



Apart from dispensing practices, the role of pharmacists has expanded to include value-added services such as patient counselling, adherence monitoring, and adverse drug reaction monitoring (Damasceno, 2016). The findings of this study also indicate that the pharmacists were aware of their responsibilities as information providers, as 99.2% of pharmacists agreed that patient counselling is a part of their duty. Majority (86%) of the hospital pharmacists were aware of that they should update their knowledge “always”. Pharmacists showed a strong understanding of the information that should be provided during patient counselling (Table 02), with high percentages for most items. Medication-related information like names of medications, duration of treatment, precautions, special directions, common side effects, contra-indications, proper storage, and refill information were all identified by over 90% of pharmacists, indicating a comprehensive understanding of essential medication information. Other aspects like lifestyle changes and appropriate actions to be taken in case of missed doses were recognized by a majority of pharmacists but to a slightly lesser extent.

Table 02 : Pharmacists’ knowledge of patient counselling

Pharmacists’ knowledge of patient counselling	Response rate (%)
1. What information should be given to the patients during patient counseling?	
Diagnosis of disease	66
Names of the medications	93
Duration of the treatment	92
Precautions	91
Special directions	96
Common side effects	96
Lifestyle changes	84
Contra-indications	94
Therapeutic indication	63
Proper storage	95
Refill information	64
Appropriate actions to be taken in case of missed dose	85
2. What frequency pharmacists should update their knowledge on counseling?	
Always	86
Often	12
Sometimes	2

Assessment of the attitudes of pharmacists on patient counseling

The mean scores for attitudes of hospital pharmacists on patient counseling range from approximately 3.6 to 4.9 (Figure 02). The highest mean score, suggests strong agreement among the respondents for positive attitudes such as "patient counseling is a part of a pharmacist’s duty" and "proper patient counseling will reduce the misuse of medications by patients". Lower mean scores were reported for attitudes that "pharmacists should provide information regardless of waiting for the request of the patient for the information" and "patients/guardians would like to get counseling from a pharmacist" but still lean towards an agreement with that statement. Attitudes for having allocated time for counseling and counselling as a joint responsibility of both physician and pharmacist had moderate mean scores, reflecting a generally positive attitude. Most questions on attitudes have high mean scores, indicating that pharmacists have positive attitudes toward patient counselling.

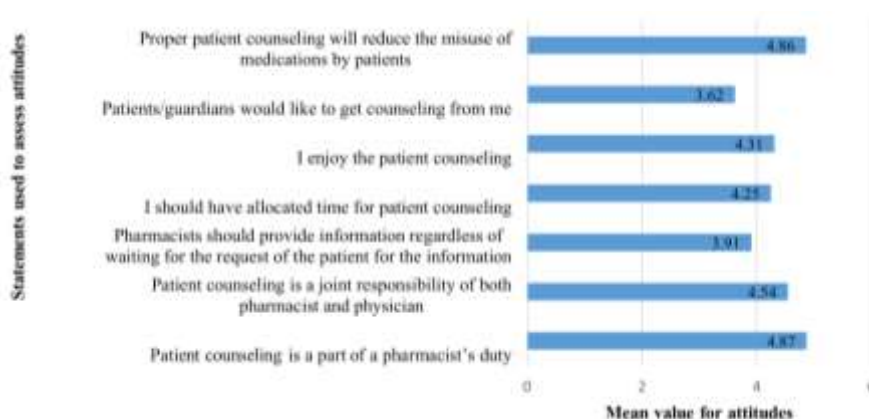


Figure 02: Attitudes of hospital pharmacists on patient counseling

Around 38% of pharmacists stated that they would feel embarrassed if they were unable to answer patients' questions. Online training was the most preferred method for improving knowledge through continuous professional development programmes, chosen by 76% of pharmacists. This indicates a strong inclination towards utilizing digital platforms and self-paced learning for knowledge enhancement. Monthly seminars were the next preferred method, selected by 41% of pharmacists, suggesting a willingness to engage in face-to-face learning opportunities as well. Weekend workshops and evening tutorials were less favoured, with 19% and 4% of pharmacists choosing them, respectively, possibly due to practical constraints on their availability.

Table 03: Pharmacists' attitudes to continuous professional development courses and barriers to patient counselling.

Pharmacists' attitudes of patient counseling	Response rate (%)
1. What are your preferred methods to improve knowledge from continuous professional development programmes?	
Monthly seminars	41
Regular classroom-type teaching	7
Weekend workshops	19
Evening tutorials	4
Online training	76
2. In your opinion, which of the following are barriers to patient counseling?	
Lack of patient awareness about pharmacist's expertise in medication counseling	37
Lack of pharmacist time for counseling	76
Lack of pharmacists who are expertise in medication counselling	45
Lack of patient demand for counseling	34
Lack of pharmacist interest in counseling	25
3. In your opinion, what are the appropriate strategies to overcome barriers for patient counselling?	
Increase public awareness about pharmacist's ability for medication counselling	54
Improve pharmacist's knowledge about medication counselling	64
Establish private consultation area in the pharmacy	50
Improve pharmacist's communication skills	50
Increase staffing in pharmacy	39



Lack of pharmacist time for counseling was identified as the most significant barrier, chosen by 76% of pharmacists. This suggests that time constraints in a busy pharmacy environment can hinder the provision of comprehensive patient counseling services. Other barriers identified by a notable percentage of pharmacists included a lack of patient awareness about pharmacist expertise in medication counseling (37%), lack of pharmacists with expertise in medication counseling (45%), lack of patient demand for counseling (34%), and lack of pharmacist interest in counseling (25%). Improvement of pharmacist knowledge of patient counselling and improvement of pharmacist communication skills were the top strategies selected by 64% and 50% of pharmacists, respectively. These results indicate that enhancing the knowledge and communication abilities of pharmacists is seen as vital for overcoming counseling barriers. Increased public awareness about the pharmacist's ability for medication counseling was identified as an important strategy by 54% of pharmacists. This indicates a recognition that patient engagement and understanding of the pharmacist's role in counseling can positively impact counseling opportunities. Other strategies like the establishment of private consultation areas in the pharmacy (50%) and increased staffing in the pharmacy (39%) were also considered potential solutions to improve patient counseling services.

CONCLUSIONS/RECOMMENDATIONS

Hospital pharmacists in the Central Province of Sri Lanka, have a strong understanding of patient counseling and its importance. They recognize their role in providing information to patients and are willing to continuously update their knowledge to deliver high-quality counseling services. There are specific areas where pharmacists can focus on improving their counseling practices, such as providing more information on therapeutic indications and lifestyle changes. These results can be valuable for shaping educational programmes and interventions aimed at enhancing patient counseling in pharmacy practice. Majority of pharmacists are interested in providing patient counselling services while accepting that the knowledge should be updated regarding patient counseling and preferred online capacity development programmes against conventional classroom-based education. Further studies are suggested to identify suitable approaches to enhance patient counseling conducted at state hospitals. It is recommended to provide training and guidelines for patient counseling and initiate policy decisions on facilitating patient counseling by pharmacists. Furthermore pharmacist's knowledge, communication skills, and public awareness about the pharmacist's role should be improved. Implementing strategies like private consultation areas and increased staffing can also play a role in optimizing patient counseling services. These insights can inform the development of targeted interventions and policies aimed at promoting patient counseling in pharmacy practice.

REFERENCES

- Adepu, R., & Nagavi, B. G. (2009). Attitudes and behaviors of practicing community pharmacists towards patient counselling. *Indian Journal of Pharmaceutical Sciences*, 71(3), 285–289. <https://doi.org/10.4103/0250-474X.56029>
- Al-Tameemi, N. K., & Sarriff, A. (2019). Knowledge, attitude and practice of pharmacists on medication therapy management: a survey in Hospital Pulau Pinang, Penang, Malaysia. *Journal of Pharmaceutical Health Care and Sciences*, 5(1), 1–9. <https://doi.org/10.1186/s40780-019-0131-9>
- Damasceno, A. (2016). *Noncommunicable diseases country profiles 2018. Heart of Africa: Clinical Profile of an Evolving Burden of Heart Disease in Africa*. World Health Organization. <https://doi.org/10.1002/9781119097136.part5>
- Guideline on Good Pharmacy Practice (Gpp)* *Guideline on Good Pharmacy Practice (Gpp)*. (2019).
- Sakeena, M. H. F., Bennett, A. A., & McLachlan, A. J. (2019). The Need to Strengthen the



- Role of the Pharmacist in Sri Lanka: Perspectives. *Pharmacy*, 7(2), 54.
<https://doi.org/10.3390/pharmacy7020054>
- Taitel, M., Jiang, J., Rudkin, K., Ewing, S., & Duncan, I. (2012). The impact of pharmacist face-to-face counseling to improve medication adherence among patients initiating statin therapy. *Patient Preference and Adherence*, 6, 323–329.
<https://doi.org/10.2147/PPA.S29353>

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