

Clinical Pharmacy Services in Community Pharmacies at Medan City Indonesia

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Abstract: Clinical Pharmacy is the practice of pharmacy as part of a multidisciplinary healthcare team directed at achieving quality use of medicines. The standards of pharmaceutical services in community pharmacies No.73/2016 consists of two areas; standards of pharmacies management and clinical pharmacy services. The aim of this study was to describe the level of implementation of clinical pharmacy services in community pharmacies at Medan city, Indonesia. This pilot study was a descriptive research that used a cross-sectional survey methodology. The level of implementation of clinical pharmacy services in community pharmacies obtained by direct survey to selected pharmacies. The clinical pharmacy services implementation level was obtained from 99 community pharmacies. Overall, the data revealed that the average score of total score from 99 community pharmacies was 6.65 ± 3.25 . The highest level of clinical pharmacy services implementation was fair (42.42%) followed by bad (33.33%) and good (14.14%). The data above showed that the clinical pharmacy services implementation in community pharmacy still in the fair level (score 6-10).

1 INTRODUCTION

The Ministry of Health of Republic of Indonesia published the act of Ministry of Health No. 1027 in September 2004 for standards of pharmaceutical services in community pharmacies even though the concept of Pharmaceutical Care in Indonesia was introduced since the late of 1990's (Ministry of health of RI, 2004). Finally, the Government issued the government regulation No.51/2009 on pharmaceutical practice as law standards of pharmacy practice in Indonesia and the most recent Act of Ministry of Health No. 73/2016 as the up-dated rule on the standards of pharmaceutical services in community pharmacies. (Ministry of health of RI, 2016). The standards of pharmaceutical services in community pharmacies No.73/2016 consists of two areas; standards of pharmacies management and clinical pharmacy services. All of the regulations was the government policy to back up the implementation of Pharmaceutical Care practice in Indonesia.

Pharmacists can apply their expertise of drug knowledge to help identify, solve and prevent medication related problems and increase patient safety by working with other health professionals (SHPA, 2005).

Pharmacists administer drug review of prescription to assess the drug appropriateness and identify actual or potential drug related problems after a prescription prescribed. Pharmacists determine patients accept the most appropriate medicine, regimen dose and dosage form for their medical complain and drug related problems are minimized. Pharmacists contact the physician if there are any incompatibility/mistake. Pharmacists also have an obligation to counsel the patients about the drug information and education to optimize the safe and appropriate use of medicines (Shah, 2009).

However, until now, there is no data about the implementation of standards of clinical pharmacy services in community pharmacies at Medan city even though the rules were already published by the Ministry of health years ago. The aim of this study was to describe the level of implementation of clinical pharmacy services in community pharmacies at Medan city, Indonesia.

2 METHODS

This pilot study was a descriptive research that used a cross-sectional survey methodology. The level of implementation of clinical pharmacy services in community pharmacies obtained by direct survey to the selected community pharmacy at Medan city.

The selection of community pharmacy was done by purposive random sampling method. Researcher was offered the pharmacists joined the study by a *whatsapp* and *facebook* app groups and until the date line time there were 99 pharmacists that joined the study. The study was conducted on July 2018.

The professional pharmacists in selected community pharmacy was asked to fill the questioners that developed according to the standards of clinical pharmacy services that stated in the Act of Ministry of Health No. 73/2016.

The questioners consists of 7 (seven) element of clinical pharmacy services; the assessment and prescription services, drug dispensing, drug information services, drug counselling, home pharmacy care, medication therapy review, drug's side effect monitoring. The pharmacists was asked to choose the answer about the implementation of the 7 (seven) element in 3 (three) level implementation; done and documented (score 2), done but not documented (score 1), not implemented (score 0).

The total score obtained by summed the score of every element. The score will range from 0 to 14 for every community pharmacy. The level of implementation were divided in three levels based on total score; good (total score 11-14), fair (total score 6-10) and bad (total score 0-5).

3 RESULTS

99 pharmacists of community pharmacies located in some district at Medan city was filled out the questioners of the implementation of clinical pharmacy services in community pharmacies at Medan City.

3.1 Clinical Pharmacy Services Implementation

The clinical pharmacy services implementation level was obtained from 99 community pharmacies. Overall, the data revealed that the average score of total score from 99 community pharmacies was 6.65±3.25 as mention in Table 1.

Table 1: Clinical pharmacy services implementation (n=99)

No. of CP	Average score	Highest Score	Lowest score
99	6.65±3.25	14	1

The data showed that the clinical pharmacy services implementation in community pharmacy still in the fair level (score 6-10). The highest score was 14 and the lowest score was 1. This study also categorized all of 99 community pharmacies based on its own total score in to three level; good, fair and bad as mention in Table 2.

Table 2: Clinical pharmacy services implementation level categorization (n=99)

No	Level	Frequency	Percentage
1	Good	14	14.14
2	Fair	42	42.42
3	Bad	33	33.33
Total		99	100

The highest level of clinical pharmacy services implementation was fair (42.42%) followed by bad (33.33%) and good (14.14%).

3.2 Seven Element of Clinical Pharmacy Services Implementation

The standards of clinical pharmacy stated in Act of Ministry of health No.73/2016 was consists of 7 elements. The data obtained from this study revealed that there were three element that still had low implementation as mention in Table 3.

The three elements with high no implementation level were the home pharmacy care (62.62%), followed by the drug's side effect monitoring (50.50%) and the medication therapy review (44.44%).

4 DISCUSSIONS

4.1 Clinical Pharmacy Services Implementation

This study revealed that the the clinical pharmacy services implementation in community pharmacy still in the fair level (score 6-10). This study also showed

Table 3: Seven element of clinical pharmacy services implementation (n=99)

No.	Element of CP services	Done and documented (%)	Done, not documented (%)	No Implementation (%)
1	The assessment and prescription services	33.33	53.53.5	13.13
2	The drug dispensing	35.35	56.56	9.09
3	The drug information services	25.25	65.65	8.08
4	The drug counselling	26.26	65.65	8.08
5	The home pharmacy care	11.11	26.26	62.62
6	The medication therapy review	14.14	41.41	44.44
7	The drug's side effect monitoring	13.13	36.36	50.50

that some community pharmacies have only score 1 (one) in implement the clinical pharmacy services.

This condition are becoming important problem that must be resolved together by the government, pharmacists professional organization, and other part of society in order to ensure the providing of the safe, qualified, and effective pharmaceutical services to the society.

4.2 Seven Element of Clinical Pharmacy Services Implementation

The data obtained from this study showed the three elements that have low implementation level. The first elements with the highest percentage (62.62%) of no implementation is the home pharmacy care.

This services were asked the pharmacists to provide the pharmaceutical services with home visit session, especially for the old age patients and patients with chronic diseases. The two others elements were the drug's side effect monitoring (50.50%) and the medication therapy review (44.44%).

The pharmacists that want to provide this three elements services must understand and possess the pharmaceutical care concept and clinical pharmacy skills. A study revealed that lack of training, lack of knowledge and confidence, poor understanding about pharmacist's role as the barriers towards extended services in clinical pharmacy services (Nordin, et al, 2017; Cordina, et al, 2008).

This research also revealed that the implementation of clinical pharmacy services categorization was predominantly by "done, not documented". This condition was far from ideal condition of clinical pharmacy services. The primary outcome of documenting clinical pharmacy activities is to improve the quality of each patient's care. Documentation is also an instrument that can be used to evaluate the accountability of the pharmacist's and

the evidence of impact of the pharmacist's services (SHPA, 2013). Another benefit of pharmacists documentation were accurate and timely communication of medication therapy recommendation, helps to ensure continuity of care, illustrates the role of the pharmacists in patients care (Dunkin and Dumont, 2013). Further research is needed to reveal the barriers of implementation of clinical pharmacy services in community pharmacies at Medan city.

5 CONCLUSIONS

The data above showed that the clinical pharmacy services implementation in community pharmacy at Medan city was still in the fair level (score 6-10). This condition must be resolved together by the government, pharmacist professional organization, and other part of society in order to ensure the providing of the safe, qualified, and effective pharmaceutical services to the society.

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