SJP Sarawak Journal of Pharmacy

Journal Homepage: http://jknsarawak.moh.gov.my/spj/



Perception of Pharmacy Staff Doing Quality Use of Medicine Campaign

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Abstract

INTRODUCTION: 'Know Your Medicines' Programme introduced by Health Ministry as part of Quality Use of Medicines activities. The program emphasised on 5R concept which are: right patient, right medicines, right dose, right route of administration and right administration.

OBJECTIVE: To study the general knowledge of pharmacy staffs on medicines, understanding of pharmacy staffs on quality use of medicine and awareness of pharmacy staffs on consumer's medicine rights

METHODS: Cross-sectional study, on pharmacy staffs of Miri General Hospital (MGH). Data collection done thru questionnaire adapted from the Quality Use of Medicine – Consumer Campaign Effectiveness Study from Pharmaceutical Division, Ministry of Health.

RESULT: 80 pharmacy staffs of MGH included in this study. All the respondents scored excellent and thus the total score is a constant. The mean score of pharmacy staffs on the general knowledge on medicines is 98.84%. The mean score of pharmacy staffs understanding on quality use of medicine is 94.33%. The mean score of pharmacy staffs on the awareness on consumer's medicine rights is 99.76%. At the time had been done, found there are no association of age, gender, ethnic and living status of the pharmacy staffs on perceiving Quality Use of Medicine Campaign.

CONCLUSION: Overall, the pharmacy staffs in Hospital Miri have good understanding and knowledge on the quality use of medicines through 'Know Your Medicines' program activities. More efforts needed to be done by government healthcare professionals especially pharmacy staffs to enhance the public knowledge about the medications. In further, research with other medical professionals in MGH should be done to compare the differences in understanding on the quality use of medicines.

KEYWORDS: Know your medicine, campaign, quality use of medicine

Introduction

According to World Health Organisation, rational use of medicines defined as patients receive medications appropriate to their clinical needs, in doses that meet their own individual requirements, for an adequate period of time, and at the lowest cost to them and their community. (1)

Types of irrational use of medicine

The common example of irrational use of medicines includes polypharmacy, inappropriate use of antimicrobials, over-use of injections when oral formulations would be more appropriate, failure to prescribe in accordance with clinical guideline and inappropriate self-medications. (1)

Some reasons that cause the irrational use of medicine. Lack of information of updated and unbiased medical usage, inadequate training and education of medical graduates, poor communication between the medical practitioners with patients can lead to the improper use of medicine. Besides that, lack of diagnostic facilities or uncertainty of diagnosis, defective drug supply system an ineffective drug regulation as well as the promotional activities of pharmaceutical industries are some other reasons. (2)

Impacts of irrational use of medicine

Irrational use of medicine can lead to many consequences. For example, in cases of under therapeutic dosage of antibiotics and other medicines may lead to limited efficacy. It might cause antibiotic resistance as well. Self-medications may also lead to drug dependences such as daily usage of painkillers.(2)

'Know Your Medicines' Programme

'Know Your Medicines' Programme introduced by Health Ministry as part of Quality Use of Medicines activities. The program emphasized on 5R concept which are: right patient, right medicines, right dose, right route of administration and right administration.(3) The rational use of medicines is important to ensure patients receive medications appropriate to their clinical needs, in

doses that meet their own individual requirements, for an adequate period of time, and at the lowest cost to them and their community. Worldwide more than 50% of all medicines prescribed, dispensed, or sold inappropriately, while 50% of patients fall to them correctly. (1) Overuse of medications, polypharmacy and incorrect medications use are examples of irrational medicine use. There are many causes that contribute to the problem, for instance, lack of information and awareness. Thus, rational use of medicines has to be promoted and emphasized to prevent further impacts due to the problem. (2)

Methods

The ethical approvals from the Ministry of Health Medical Research Ethics Committee (MREC) and Miri General Hospital (MGH) received before the study carried out. A written consent presented to each respondent before taking part into this survey.

A cross-sectional study carried out to evaluate perceiving pharmacy staff doing quality use of medicine campaign. MGH is the largest public hospital in Miri city of Sarawak state. This study conducted among all pharmacy staff in Miri General Hospital. The total number of staff is 80.

80 questionnaires distributed out. Subjects captured by purposive sampling. The inclusion criteria of this study include [1] pharmacy staff in MGH, [2] Assistant Pharmacists with grade at least U29 or Pharmacist with grade at least U41. No exclusion criteria in this study.

A written consent presented to each subject. The consent form attached with the questionnaires.

There are 3 parts in the instrument, where part 1 is the consent form, part 2 is the patient's socio-demographic data and part 3 is the questionnaire. The patient's socio demographic data includes age, gender, ethnic, occupation, living status, and educational level. The questionnaire adapted and adapted from the Quality Use of Medicine – Consumer Campaign Effectiveness Study from Pharmaceutical Division, Ministry of Health(3). Permission to use this questionnaire obtained from the corresponding author by email. The questionnaire consists of 8 items with sub-questions. Each item was a close-ended, multiple-choice question with 1 correct answer. The questionnaire was available in 2

languages: Malay and English. Subjects must answer all the questions. The whole instrument needs 10-15 minutes to complete.

A true answer given a score of '1' while false answer as '0'. Total score calculated based on number-right scoring method. The total score further corrected for guessing using formula scoring via the following equation:

$$FS=R-W/(C-1)$$

In which,

FS = 'corrected' or formula score

R = number f items answered right

W = Number of items answered wrong

C = number of choices per item (same for all items)

The interpretation of score based on interquartile as outlined below:

Table 1: Interpretation of Score

PERCENTILE	INTERPRETATION
25	Poor knowledge
50-75	Moderate knowledge
>75	Excellent knowledge

Statistical Analysis

Statistical Package for Social Science (SPSS) software version 21 used to enter and analysed the data. Descriptive statistics used to describe the demographic data of patients. The patient's demographic data presented in percentages and frequencies since the data are categorical variables. The score of

pharmacy staff's understanding of quality use of medicine were numerical variables, therefore the data presented in 3 groups: poor knowledge (25 percentile), moderate knowledge (50-75 percentile) and good knowledge (>75 percentile). Pearson chi-square test performed to analyse the relationship between the demographic data and understanding of pharmacy staff doing quality use of medicine campaign. The significance level of correlation between variables set at p-value <0.05.

Results

We had distributed questionnaires to 80 pharmacy staff at Miri General Hospital, whom are pharmacists and pharmacist assistants of all grades. All of them answered the questionnaire and the results analysed using the IBM SPSS Statistics 21 software. All the respondents scored excellent and thus the total score is a constant. The results are then further analysed based on the objectives; 1) To study the general knowledge of pharmacy staffs on medicines, 2) To study pharmacy staffs understanding on quality use of medicine and 3) To study the awareness of pharmacy staffs on consumer's medicine rights.

To study the general knowledge of pharmacy staffs on medicines

This objective used to assess the general knowledge of pharmacy staffs at Miri General Hospital on medicines. The variables that considered are the general definition of medicine, generic and brand name, medicine's label and need to be registered with KKM. The mean score of pharmacy staffs on these variables is 98.84%, which demonstrated good general knowledge on medicines. The correlation also analysed using the Pearson Chi-Square test and found no correlation of age, gender, ethnic and living status of the pharmacy staffs towards the general knowledge on medicines.

To study pharmacy staffs understanding on quality use of medicine

The second objective used to assess pharmacy staffs understanding at Miri General Hospital on quality use of medicines. The variables include right way to take medicine, appropriate place to obtain the medicine, correct way to store the medicine and correct way to dispose damaged or expired medicine. The mean score of pharmacy staffs on these variables is 94.33%, which demonstrated good

understanding on quality use of medicine. The correlation also analysed using the Pearson Chi-Square test and found no correlation of age, gender, ethnic and living status of the pharmacy staffs towards the understanding on quality use of medicine.

To study the awareness of pharmacy staffs on consumer's medicine rights

This last objective used to assess the awareness of pharmacy staffs at Miri General Hospital on the consumer's medicine rights. The variable that considered includes patient's right to obtain the correct information of the medicine such as name, indication, method of administration, correct label, safety and possible interaction. The mean score of pharmacy staffs on these variables is 99.76%, which demonstrated good awareness on consumer's medicine rights. The correlation also analysed using the Pearson Chi-Square test and found no correlation of age, gender, ethnic and living status of the pharmacy staffs towards the awareness on consumer's medicine rights.

Respondents' knowledge on the quality use of medicines

Table 2: Respondents' knowledge on the quality use of medicines

Dimension	Statement	Correct answer, n	Wrong answer, n
Knowledge on what are medicines?	Substances used to treat diseases	80	0
	Substances used to prevent diseases	75	5
	Substances used to control diseases	80	0
Knowledge on types, labelling and registration of medicines	Generic name of the medicines	80	0
	Brand or trade name of the medicines	79	1
	You should read the label before taking any medicines	80	0
	All medicines should be registered with the Malaysian Ministry of Health	77	3
Knowledge on quality use of medicines	Right medicines	80	0
	Right dose	80	0
	Right administration time	80	0
Knowledge on right as medicines consumer	Rights to know the name of the medicines	80	0
	Rights to obtain information on the indication of the medicines	80	0
	Rights to obtain the information on how to take the medicines	80	0
	Rights to obtain correctly labelled medicines	80	0
	Rights to obtain the information on safety and interaction of medicines supplied	79	1
Knowledge on controlled medicines	Medicines which can be obtained from medical doctors	78	2
	Medicines which can be obtained from pharmacists	69	11
	Medicines which can be obtained from traditional medicine practitioner	73	7

Knowledge on obtaining controlled medicines	A government clinic/hospital	80	0
	Private clinic/hospital	78	2
	Community pharmacy	69	11
	Traditional medicines outlet/Chinese medicines hall	74	6
	Grocery shop	78	2
	Night market	80	0
	Internet	80	0
Knowledge on medicines storage	In the bathroom	77	3
	Away from sunlight and heat	76	4
	In places reachable to children	76	4
	In the car	79	1
Knowledge on disposing expired/ damaged medicines	Throw into the rubbish bin	73	7
	Flush down the toilet	59	21
	Burn	72	8
	Bury	68	12
	Return to the nearest pharmacy, clinic or hospital	80	0

Discussion

Generally, the results of the survey indicated knowledge on the use of medicines of the pharmacy staffs in Hospital Miri are satisfying. Nearly all of them understood that medicines used to treat, prevent and control the diseases (3).

Pharmacy staffs showed good ability to differentiate the generic and trade names of medicines. This is important as there are many medicines with same active ingredients but different brand names. Thus, when pharmacy staffs provide the information of medicines, consumers can be presented with more choices of that particular medicine that might available at retail market and eventually satisfying the consumers' right to choices(3). Previously, there was a survey done among the general public in

Penang state and it showed that respondents were more familiar with trade names instead of generic names(4). Besides, sometime there will be shortage of certain medicines in government hospitals, thus consumers or patients still able to obtain same medication from outside after knowing the generic names. Other than that, it is true that some healthcare prescribers tend to prescribe the medications in brand name rather than generic names(5). Therefore, it is a crucial role that pharmacists need to know the medication prescribed.

It was found that all of them know the need to read the label before taking any medicines and understand that all medicines should be registered under Malaysian Ministry of Health. All pharmaceutical products including health supplements and traditional preparations must be registered under the Drug Control Authority (DCA) before being marketed in Malaysia. This is to ensure the products are safe to be taken by the public.

All the pharmacy staffs know the importance of right medicines, dose and schedule of administration. The information can be found on the medicine labels as required by Malaysian Poison Act 1952(6). This can fulfil the rights of medicines consumers. In 2003, the Poisons Board amended the Poisons Regulations 1952 whereby all dispensed medicines containing poisons must now labelled with the words Controlled Medicines or Ubat Terkawal. Controlled medicines can only be dispensed by registered medical practitioners or licensed pharmacist on the premises specified in his or her license. Pharmacists should know the proper medicines distribution channel and provide important message so consumers can access to safe and effective products and services(3).

Storage of the medicines depends on type of the drugs themselves. For example, there are medications need to be protected from sunlight; keep away from extreme heat or humidity; stored in the refrigerator from 2-8^{o}C and so on(7). It is important to inform the consumers or patients the correct place and condition to store the medications supplied. Appropriate medicine storage conditions enable preventing drugs degradation. Thus, knowledge of correct safe keeping of medicines ensures the stability, safety and effectiveness of medication(3).

Since 2010, Ministry of Health has implemented the Return Your Medicines Programme. Patients can return the unused medicines kept at home for safe disposal by MOH. Medicines that are no longer needed can be returned to pharmacy counter at all pharmacy facilities in MOH hospitals and health clinics. Many patients still unable to dispose the medicine correctly (8). As pharmacists, it is vital to encourage and advise the consumers about the appropriate method of disposal of medicines.

However, not 100% of pharmacy staff knows all the 5 rights of medicine consumers. It is implied that pharmacy staffs are not fully aware of the rights that every consumer should have. Medicine dispensers themselves should fight and provide the required rights. Patients may not necessarily read or understand the label instructions properly. Poor health literacy and understanding of medicine use could lead to medication errors. There is the need for pharmacy staffs to provide information of medicines including names, indication, method of taking medications, correctly labelled medicines and safety and interaction of medicines supplied(3).

Limitation

This study has a few limitations, one of which is the respondent's occupation, in which all the respondents are working in the pharmacy field either as pharmacist or assistant pharmacist. Due to time constraint, the study could not conduct to other medical professionals in the hospital.

Conclusion

Overall, the pharmacy staffs in Hospital Miri have good understanding and knowledge on the quality use of medicines through 'Know Your Medicines' programme activities. More efforts needed to be done by government healthcare professionals especially pharmacy staffs to enhance the public knowledge about the medications.

Acknowledgement

We would like to express our sincerest gratitude to study participants, and our supervisor Mr Kamarudin Bin Ahmad and Miss Wong Siew Wei as well as all personnel in MGH.

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