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IAI CONFERENCE

RESEARCH ARTICLE

Satisfaction of drug information services implementation in Air Itam, Selindung, Girimaya, Gerunggang and Melintang health centre Pangkalpinang City

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Abstract

Background: Previous studies have shown that the service quality of the pharmaceutical drug information service has not been optimally implemented. This problem also occurred in Pangkalpinang city. Therefore, it is essential to conduct a study on the satisfaction of drug information service implementation to improve the quality of pharmaceutical services. **Aim:** Examining the satisfaction of drug information service implementation in Air Itam, Selindung, Girimaya, Gerunggang, and Melintang health centres Pangkalpinang city. **Method:** This observational research was conducted from March to December 2018 in Air Itam, Selindung, Girimaya, Gerunggang, and Melintang health centres, Pangkalpinang city. It involved 150 patients selected by accidental sampling techniques, and the bivariate analyses were performed using the dependent t-test. **Results:** The quality of drug information service implementation in all dimensions was good, and there were significant differences in tangibility ($p < 0.0001$), reliability ($p = 0.025$), and empathy ($p = 0.011$). All respondents were quite satisfied with the drug information service implementation in all dimensions, with a significant difference in the dimensions of tangibility ($p = 0.002$), reliability ($p = 0.045$), and empathy ($p = 0.045$). **Conclusion:** All respondents were quite satisfied with the drug information service implementation in all dimensions.

Introduction

The demands of patients and the community for the quality improvement of pharmaceutical service require an expansion from the old paradigm that is product-oriented (drug-oriented) to a new paradigm that is patient-oriented, with a philosophy of pharmaceutical care (Indonesian Ministry of Health, 2016a). This development can be an opportunity and a challenge for pharmacists to advance their competence to provide comprehensive pharmaceutical services, both managerial and clinical pharmacy (Indonesian Ministry of Health, 2016b). Based on Pharmaceutical Service Standards in Health Center, seven clinical pharmacy services must be carried out, i.e. assessment and prescription services, drug information services, counselling, patient visits (especially inpatient health centres), drug side effects monitoring, drug therapy monitoring, and drug use evaluation. Drug information service is a service activity carried out by pharmacists to provide accurate, explicit, and up-to-date information to doctors, pharmacists, nurses, other health professionals, and patients (Indonesian Ministry of Health, 2016a).

Research showed that pharmaceutical services implementation in the Province of Bangka Belitung

Islands has not been optimal, especially clinical pharmacy services in the form of drug information service (Djuria, 2017). Several other studies revealed that drug information services were not satisfactory in many cities, i.e. Health Centre in Pangkalpinang City (Djuria, 2013), Membalong Health Centre in Belitung Regency (Permadi, 2013), Gerunggang Health Centre in Pangkalpinang City (Defika, 2015), or not fully implemented, as in the Koba Health Centre in Bangka (Julimansyah, 2015). Also, the drug information service at Petaling Health Centre is not following the 2016 Standard for Pharmaceutical Services at Health Centre (Trisnawati, 2016).

However, these results oppose other findings showing that drug information services in some cities, such as Sungailiat (Septashary, 2014), Pasir Putih, Pangkalbalam, Taman Sari, and Kacang Pedang (Djuria, 2019), are satisfactory in all dimensions, particularly empathy. In 2015, Karolin reported a significant relationship between the quality of drug information service and patient satisfaction with pharmaceutical services, in particular, and health services, in general, at Pangkalbalam Health Centre, Pangkalpinang City (Karolin, 2015).

Therefore, researchers were interested in examining the satisfaction of patients with drug information services in other Pangkalpinang City Health Centres, namely, Air Itam, Selindung, Girimaya, Gerunggang, and Melintang.

Methods

This observational research was conducted between March and December 2018 at Air Itam, Selindung, Girimaya, Gerunggang, and Melintang Health Centres in Pangkalpinang City. The sample size for evaluating health services was 30 encounters between health workers and patients (WHO, 1993). Therefore, the sample of this study consisted of 150 respondents (30 respondents per health centre). The encounters sampling technique used the accidental sampling method. Patient encounters data were taken around the drug delivery/pharmacy area. Research data consisted of primary and secondary data. Primary data were collected by researchers directly from the field and processed by researchers, while secondary data were obtained from the Pangkalpinang City Health Office and Pangakalpinang City Health Centre. The questionnaire used for primary data collection consisted of five satisfaction variables, i.e. tangibility, reliability, responsiveness, assurance, and empathy. Before taking primary data, the validity and reliability were tested at the Pangkalan Baru Health Centre, and respondents read the explanation and then filled the informed consent form. This study consisted of the independent variable (implementation of drug information service) and the dependent variable (satisfaction with the implementation of drug information service). The data analysis methods were univariate and bivariate using the dependent t-test. This study has received ethical approval from the health research ethics committee of The Health Research Polytechnic of the Ministry of Health, Pangkalpinang city.

Results

The results showed that most respondents (54%) had low education, 49.3% were aged 18-40 years, old and 70% did not work (Table I). Also, the quality of drug information service implementation was satisfactory in all dimensions. Significant differences were seen in drug information service implementation in the dimensions of tangibility, reliability, and empathy (Table II). All respondents were quite satisfied with the implementation of drug information services in all aspects. There were significant differences in respondent satisfaction with drug information service implementation in the dimensions of tangibility, reliability, and empathy (Table III).

Table I: Demographics of research respondents

Variable	Category	n= 150	%
Highest education	Low (no school-elementary school-junior high school)	81	54
	High (senior high school-university)	69	46
Age	≤ 17 year	18	12
	18-40 year	74	49.3
	41-65 year	52	34.7
	> 65 year	6	4
Job	Didn't work	105	70
	Work	45	30

Table II: Description implementation of service

Dimension	Category	Pre-test		Post-test		*Sig* (2 tailed)
		n=150	%	n=150	%	
Tangible	Not Good	15	10	0	0	$p < 0.0001$
	Good	135	90	150	100	
Reliability	Not Good	5	3.3	0	0	$p = 0.025$
	Good	145	96.7	150	100	
Responsiveness	Not Good	11	7.3	5	3.3	$p = 0.134$
	Good	139	92.7	145	96.7	
Assurance	Not Good	2	1.3	2	1.3	$p = 1$
	Good	148	98.7	148	98.7	
Empathy	Not Good	15	10	4	2.7	$p = 0.011$
	Good	135	90	146	97.3	

Table III: Description of satisfaction

Group	Category	Pre-test n=150	%	Post-test n=150	%	*Sig* (2 tailed)
Tangible	Not satisfied	12	8	0	0	*p* = 0.002
	Enough satisfied	137	91.3	150	100	
	Satisfied	1	0.7	0	0	
Reliability	Not satisfied	4	2.7	0	0	*p* = 0.045
	Enough satisfied	146	97.3	150	100	
	Satisfied	0	0	0	0	
Responsiveness	Not satisfied	150	100	150	100	*p* = 0.083
	Enough satisfied	0	0	3	2	
	Satisfied	150	100	147	98	
Assurance	Not satisfied	0	0	0	0	*p* = 1
	Enough satisfied	150	100	150	100	
	Satisfied	1	0,7	1	0.7	
	Not satisfied	149	99.3	149	99.3	
	Enough satisfied	0	0	0	0	
	Satisfied	150	100	150	100	
Empathy	Not satisfied	12	8	3	2	*p* = 0.045
	Enough satisfied	137	91.3	147	98	
	Satisfied	1	0.7	0	0	
	Not satisfied	150	100	150	100	

Discussion

The research results show that the quality of drug information service implementation was satisfactory in all dimensions. Significant differences were seen in drug information service implementation in the dimensions of tangibility, reliability, and empathy. The results of this study are consistent with previous findings (George & Rao, 2005), showing an overall satisfaction of most respondents with drug information services; the queries answered by the centre were within acceptable quality limits.

This research reported the satisfaction of respondents with the tangibility dimension (physical evidence), reflected by the presence of magazines, leaflets, drug labels, and posters at the health centre. Respondents were also satisfied with the drug information answers of pharmaceutical personnel. Indeed, the results showed that pharmaceutical personnel is reliable in answering queries. The existence of significant deficiencies could be due to differences in the timeliness of service. A study in 2006 (Leksamana, 2006) reported that reliability includes the ability to provide promised services reliably, accurately, and timely. The empathy dimension includes attention, politeness, understanding consumer needs, and communication relationships (Wijayanti, 2008; James, 2006). Respondents reported that pharmaceutical officers have good communication skills; they pay attention and understand the needs related to their prescribed treatment.

All respondents were quite satisfied with all dimensions of drug information services implementation, with significant differences in satisfaction of tangibility, reliability, and empathy. This result contradicts previous findings (Rawn, 1999), showing that respondents reported a high level of overall satisfaction with Roche drug information services. In general, there was a good correlation between customer needs and customer satisfaction with the services offered. Areas of strength were courtesy of personnel, accuracy, and relevance to the inquiry, while response time required improvement. Suggested strategies for improvement consisted of expanding the range of topics available through the “Fax on Demand” system, raising customer awareness of this system, streamlining the process of handling information requests, and using a drug information website with an externally accessible database to reduce the workload of Roche Drug Information and Safety Department.

Previous research showed that drug information services provided by the pharmacy practice department of Kasturba Hospital, Manipal, catered to the need of health care professionals and eventually towards better patient care (George & Rao, 2005). Another study in Sudan (Fatherlrahman *et al.*, 2008) revealed that providing an acceptable drug information quality of service satisfied and retained users. Overall, the service received a positive evaluation. However, research in Latin America reported deficiencies, mainly a lack of objectivity among respondents (Fisher, Tavares & Pizzol, 2012).

The results of this study show that the drug information service given is still following the standards of pharmaceutical services at the Community Health Centre. According to these standards, services should include a bulletin, leaflet, drug label, poster, wall magazine, among others (Indonesian Ministry of Health, 2016a). A study in 1995 (Parasuraman, 1995) reported that the tangibility variable encompasses the availability of physical facilities, equipment, and room support facilities owned by service providers. Satisfaction with this variable can occur if the physical facilities are easily accessible and the appearance of employees is neat. In the sample of this study, respondents were somewhat satisfied because some aspects have not been fulfilled by the pharmaceutical officer, such as drug labels and posters from the Ministry of Health.

Of all respondents, 105 (70%) did not work as they were mainly housewives. While waiting, they usually direct their children towards objects of interest to them, such as wall magazines and leaflets. Therefore, respondents reported that such publications were of help.

Most respondents had low education levels (54%). Unlike people with high education, those with low education do not have high expectations. Therefore, it is easier for them to accept and be satisfied with the services provided. A previous study (Yuniarta & Suharto, 2011) revealed that the higher the education level, the higher the level of satisfaction with informed consent. Patients with low education might not understand the meaning of informed consent or the explanations given about the study objectives.

In this study, most participants were 18-40 years old (49.3%). Adults are usually more interested in immediately visible things. Therefore, the newsletters, wall magazines, posters, and leaflets are readily accepted by the respondents. Adults are motivated to learn according to their perceived needs and interests. This need for learning will be more oriented toward developmental tasks than social roles (Anonymous, 2018).

Measurement of the drug information service implementation in the reliability dimension, by statistically, there was a significant difference in satisfaction. The satisfaction of customers with service quality can be achieved by increasing the reliability to provide quality products and ease of access to goods/services (Juran, 1995). Providing services as promised using attractive product packaging are also predictors of customer satisfaction (Julianto, 2000). There was no significant difference in satisfaction because of the change in drug information services in the reliability dimension.

Satisfaction with the empathy dimension was significant in the implementation of drug information services as respondents could feel the increased attention of pharmacy officers. According to Yofa (2010), satisfaction with empathy is achieved when employees do not differentiate between consumers, provide solutions to problems, and understand the needs.

This result is supported by previous findings (Pascoe, 1983) showing that patient satisfaction can provide a dependent measure of service quality and serves as a predictor of health-related behaviours. Moreover, a previous study (Izzetin, 2019) showed that internet-based drug information services provided by clinical pharmacists contributed positively to users' satisfaction, indicating the importance of clinical pharmacists' involvement in this process.

Conclusion

This research reported that all respondents were quite satisfied with the Drug Information Service implementation in all dimensions.

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