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Profile of Existing Pharmacists and Patient Perceptions of Pharmaceutical Services at Pharmacies in East Java

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ABSTRACT

The role of pharmacists in pharmaceutical services requires pharmacists to build professional and courtesy expectations to provide better pharmaceutical services. This study aims to describe the existing conditions of pharmaceutical practices for pharmacist and patient perceptions of pharmaceutical services in pharmacies. A descriptive observational study with cross sectional design was conducted on 29 pharmacists and 53 patients in East Java. The variable of this research is the pharmacist's image which is measured by competence, ethics, communication skills, and emotional intelligence. The results showed that 100% of pharmacists believe in their competence, ethics, and communication skills. As many as 62% of pharmacists have a moderate category on the dimensions of emotional intelligence. The patients' perceptions of pharmacists for competence, ethics, and communication skills were 96.2%, 96.2%, and 92.5%, respectively. The respondents, both pharmacists, and patients, have a good perception of the pharmaceutical services provided by pharmacists. However, the emotional intelligence of pharmacist needs to be improved.

Keywords:　perception, image, pharmacist, patient, pharmacies.

Introduction

Pharmacists have an important role in the health care system by improving the quality of life of patients through pharmaceutical care, providing drug information services, monitoring drug therapy and conducting health screenings.[1–3] Pharmaceutical care is the contribution from pharmacists to patients and other health workers involving the in design, implementation, and develop a plan for therapeutic drug monitoring until the expected results are achieved.[4,5] Good pharmaceutical care is a service that is oriented directly toward the process of using drugs, aimed at ensuring the safety, effectiveness, and rationality of drug use by applying science in patient care, therapeutic drug monitoring and decreasing the possibility of medication errors, with the ultimate aim of improving the quality of life of patient's.[6,7] The shift in the role of pharmacists from product-oriented to patient-oriented cannot be separated from the concept of pharmaceutical care. As a profession that has competence in drug therapy management, pharmacists are always involved in interacting with patients,[8,9] during which patients will successfully fulfill their expectations of pharmaceutical services. The patient's perception of the pharmacist is very important, for example when the patient asks for an explanation about side effects, if the pharmacist cannot perform their role, it can create fear and impact the adherence to medication.[10–12] Furthermore, pharmacists also play an essential role in medication safety.[13,14]

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In a previous study, out of 630 research samples, 61.4% of the respondents agreed that pharmacists know more about medication, side effects, and how to use drugs than medical practitioners. However, more than half of the respondents (54.4%) thought that the role of pharmacist's was limited to supplying medicines, while 66.6% of the respondents believed that pharmacist's follow the directions of doctors. In addition, 89.0% of the respondents appreciated and complied with the counseling provided by pharmacists, further, 85.0% of respondents hoped pharmacists could play a more significant role in health services in the future.[15] In a study conducted in Qatar, more than 70% of patients (from 339 samples) did not expect pharmacists to monitor their health progress. Only 37.0% of patients agree that pharmacists have sufficient knowledge and provide sufficient time for patient counseling,[16] thus it can be concluded that patients' understand that the role of pharmacist's in monitoring drug therapy and conducting health screening still needs to be improved.

An understanding of the role of pharmacists is needed to create a positive image and reaction when providing pharmaceutical services. It is important to improve the image of pharmacist's, as this will improve the professional and courtesy expectations for patients, improving the positive reaction toward the pharmacist.[17] Competence and ethics are an important part of the professionalism of pharmacists,[18,19] together with communication skills when carrying out professional practice.[20,21] The competence, ethics, and communication skills of a pharmacist are expected to meet professional expectations, while to meet courtesy expectations, emotional intelligence is needed from pharmacists because emotional intelligence is closely related to empathy and politeness when building relationships as part of social skills.[22] Therefore, the image of the pharmacist perceived by the patient can be demonstrated through competence, ethics, communication skills, and emotional intelligence.

As pharmacists need to market and explain their expanding role as healthcare providers to patients, the public needs to accept that pharmacists play a major role in providing drug information and pharmaceutical services.[23] Based on this background, this study aims to

describe the existing condition of pharmacists in practice and the perception of patients regarding the pharmaceutical services received in pharmacies.

Materials and Methods

Ethical considerations
The study protocol was approved by the Health Research Ethics Committee, Faculty of Pharmacy, Universitas Airlangga (approval number 1/LE/2022).

Methods
This research is a descriptive, cross sectional study conducted in June 2022 in the East Java region. The criteria for pharmacies where those who the pharmacist are always there when the pharmacy is open, available for prescription services to patients, and is not part of the hospital. Meanwhile, the inclusion criteria for patients included the patients of the pharmacies and those respondents accepting to participate until the study was completed.
The sample included pharmacists who practice in pharmacies, and patients in districts and cities in East Java covering Kediri Regency/City, Ponorogo Regency, Sidoarjo Regency and Surabaya City. Sampling was conducted using a non-probability sampling method. This observational study was conducted through pharmacists who practice at pharmacies (29 respondents) and patients who received pharmaceutical services at pharmacies (53 respondents).

Questionnaire
The questionnaire was developed by the researcher based on a literature review and discussion of the literature review findings before validation. The questionnaire was divided into two sections, one for the pharmacist's respondents and a questionnaire to patient respondents. The questionnaire to the pharmacist included the characteristics, and questionnaire about the pharmacist's image, namely competence, ethics, communication skills and emotional intelligence. Patient respondents also received a questionnaire with the same coverage, namely the characteristics, and the pharmacist's image including competence, ethics, communication skills and emotional intelligence.
The validity and reliability tests were carried out to ensure that the questionnaire could be applied to subjects when used in research.[24] The validity tests included content, construct, and external validity. Content validity is to obtain information on the conformity of the contents of the statement items, followed by construct validity through expert judgment. The external validity test was carried out by comparing the instrument criteria with empirical facts in the field of statistical procedures using the Pearson product-moment correlation technique analyzed with SPSS. The p-value was set to 0.05 with an r table of 0.320. The test results show that the r count for all variables of competence, ethics, communication skills, and emotional intelligence is >0.320, which implies that the questions are valid. The reliability of this questionnaire was analyzed using the Cronbach's Alpha test, and the results on the variables competence were 0.961 (> 0.60), ethics 0.916 (> 0.60), communication skills 0.869 (> 0.60), and emotional intelligence 0.877 (> 0.60). The Cronbach alpha value of 0.60-0.70 is included in an acceptable level of reliability, and if it is greater than 0.80, it is considered very good.[25]

Data analysis
Analysis was carried out descriptively by constructing tables. The data contains characteristic socio-demographics and perceptions of the image of pharmacists obtained from questionnaires given to pharmacists and patients.

Results and Discussion

Descriptive Analysis of Respondents Characteristics
A total of 29 pharmacists and 53 patients met the inclusion criteria. Data on the patient's sociodemographic characteristics such as age, gender, education level, occupation, illness and frequency of visits to the pharmacy were collected. Characteristics of pharmacists such as age, gender, last education, year of graduation, length of practice, location and ownership of pharmacies.
Table 1 shows the characteristics of the pharmacists. Most of the pharmacist respondents are females (22 people; 75.9%), with an age range 31-40 years (19 people; 65.5%), graduating above the year 2010 (16 people; 55.2%), with the last education level of bachelor-pharmacist (22 people; 75.9%) with a practice period of 1- 5 years (13 people; 44.9%). Most of the respondents came from East Java (29 people; 100%) and all were independent practicing pharmacists. Table 2 shows the characteristics of the patients, with mostly females (27 people; 50.9%), with an age range 21-30 years (12 people; 22.6%), high school education/equivalent (27 people; 50.9%), self-employed (21 people; 39.6%) and with a frequency of visiting the pharmacy 1-5 times a month (38 people; 71.7%) and coming to the pharmacy without any complaints (16 people; 30.1%).

Table 1: Characteristics of respondents (pharmacist) (n = 29)

Characteristics	n	%
Gender		
Male	7	24.10
Female	22	75.90
Age		
21–30	8	27.60
31–40	19	65.50
41–50	2	6.90
Educational background		
Bachelor-pharmacist	22	75.90
Master	7	24.10
Length of practice (years)		
<1	3	10.30
1-5	13	44.90
5-10	6	20.70
>10	7	24.10

Graduate year		
2000–2010	13	44.80
>2010	16	55.20
Ownership		
Independent practice pharmacist	29	100.00
Location		
East Java	29	100.00

Table 2: Characteristics of respondents (patients) (n = 53)

Characteristics	n	%
Gender		
Male	26	49.10
Female	27	50.90
Age		
10–20	2	3.80
21–30	12	22.60
31–40	16	30.20
41–50	11	20.80
51–60	8	15.10
>60	4	7.50
Educational background		
Elementary school	3	5.70
Junior high school	3	5.70
Senior high school/equivalent	27	50.90
Diploma three	3	5.70
Bachelors	14	26.40
Masters	2	3.70
Other	1	1.90
Occupation		
Self-employed	21	39.60
Housewife	8	15.10
Student	1	1.90
Employed	4	7.50
Government employee	1	1.90
Other	18	34.00
The frequency of respondent visits to the pharmacy (times per month)		
1–5	38	71.70
>5	15	28.30
Disease suffered		
Diabetes mellitus	2	3.80
Hypertension	4	7.40
Heart disease	2	3.80
Cough and cold	2	3.80
Gastritis	3	5.70
Joint pain	2	3.80
Dyslipidemia	2	3.80

Congestion	1	1.90
Headache	2	3.80
Fever	1	1.90
TB	1	1.90
Constipation	1	1.90
Gout	2	3.80
Cyst	1	1.90
Dysmenorrhea	1	1.90
SLE	2	3.80
Pain	1	1.90
Eye pain	4	7.40
Hypotension	1	1.90
UTI	1	1.90
Diarrhea	1	1.90
Without complaints	16	30.10

Descriptive analysis of the Pharmacist Image
Measurement of pharmacist's image was carried out using a questionnaire with 4 variable dimensions, namely competence, ethics, communication skills, and emotional intelligence. The responses were categorized using a Likert scale of 1-5, namely never, rarely, sometimes, often, and always. The measurement scale used for the pharmacist's image is categorical, namely an ordinal scale with three categories, namely good (3.66-5), moderate (2.33- <3.6) and poor (< 2.33). The results of the research on the description of the professionalism and courtesy of pharmacists in providing pharmaceutical services at the pharmacy with the dimensions of competence and ethics variables, communication skills variables, and emotional intelligence variables.
Based on Table 3, the variables of competence, ethics, and communication skills get a good category score of 29 people (100%) while emotional intelligence has a good category value of 11 people (38%) and enough category 18 people (62%).

Descriptive analysis of Patient Perceptions of Pharmaceutical Services at Pharmacies
Patients need professional pharmaceutical services, with competence and ethics, as well as communication skills and courtesy which is indicated by emotional intelligence when carrying out pharmaceutical work in pharmacies. Measuring the quality of pharmaceutical services by pharmacists in pharmacies uses a questionnaire with four variable dimensions, namely competence, ethics, communication skills, and emotional intelligence. Responses to items are categorized using a Likert scale of 1- 5, namely never, rarely, sometimes, often, and always. The measurement scale used to measure pharmacist's image is a categorical scale, namely an ordinal scale with three categories, namely good (3.66-5), moderate (2.33- <3.6) and poor (< 2.33).
Based on Table 4, patients had good perceptions of the variables of competence (96.2%), ethics (96.2%), and communication skills (92.5%). While on the variable of emotional intelligence as the fulfillment of courtesy expectations, 79.2% of patients rated the pharmacist as good, and 20.8% in the moderate category.
In this study, the results describe the existing condition of pharmacists that provide pharmaceutical services and patient perceptions of pharmaceutical services in pharmacies in the province of East Java, Indonesia. Based on the data obtained, pharmacists have applied indicators of professionalism such as competence and ethics as well as supporting indicators in the form of communication skills shown by 100% of pharmacists being in the good category.
The competence of a health worker is part of professionalism, thus it becomes an absolute must-have.[18] If pharmacists acknowledge their competence, this may improve the pharmaceutical profession in Indonesia. The variable, ethics, is a fundamental thing for a pharmacist who must be adhered to in carrying out his work every day.[26] The ethical perception by pharmacists has shown good results in this aspect. The communication skill variable is one of the challenges for most pharmacists.[27–29] This is possibly due to regional differences in Indonesia, whereas areas with continuing professional development will certainly have an impact on good pharmacist communication skills.
Regarding the courtesy variable, namely emotional intelligence, more pharmacists assess the level of emotional intelligence in the moderate category (62%). Judging from the results of the percentage of each variable that builds the image of the pharmacist, the emotional intelligence variable still needs to be optimized because the emotional intelligence of a health worker contributes to patient satisfaction.[30]
The perception of patients regarding the pharmacist's image, shows that the competence, ethics, and communication skills variables are more than 90% in the good category, meaning that the patient considers competence, ethics, and communication skills by the pharmacist as going well. Based on the results, emotional intelligence has a value of 79.2% which is lower than the other variables.
Based on perception between pharmacists and patients of the pharmacist's image, competence, ethics, and communication skills variables of professional expectations are included in the good category in the overall assessment by both pharmacists and more than 90% of patients. Meanwhile, emotional intelligence which is a variable of courtesy expectations, is lower than the previous three variables. Most pharmacists (62%) rate emotional intelligence in the moderate category. Emotional intelligence is known to affect various things related to performance such as attitude, ability to listen well, and empathy when carrying out work,[31] meaning that emotional intelligence can impact a pharmacist in doing their work. Thus far, there are no studies on pharmacist emotional intelligence in the context of the Indonesian region. This warrants further study, although the results show that patients think that most (79.2%) pharmacists have good emotional intelligence.
The limitation of this research is that the research was only conducted in pharmacies in East Java, thus it has not possible to show a national profile.

Conclusion

Pharmacists have demonstrated the professional dimensions such as competence and ethics as well as supporting indicators in the form of communication skills, however, supporting indicators for courtesy, namely emotional intelligence, still need to be optimized. Therefore, it is necessary to conduct further studies on the emotional intelligence of pharmacists in Indonesia.

Table 3: Pharmacist's perception of the pharmacist image

Variable	Category		
	Poor	**Moderate**	**Good**
	n (%)	**n (%)**	**n (%)**
Competence	0 (0)	0 (0)	29 (100)
Ethics	0 (0)	0 (0)	29 (100)
Communication skills	0 (0)	0 (0)	29 (100)
Emotional intelligence	0 (0)	18 (62)	11 (38)

Table 4: Patient's perception of the pharmacist's image

Variable	Category		
	Poor	**Moderate**	**Good**
	n (%)	**n (%)**	**n (%)**
Competence	0 (0)	2 (3.8)	51 (96.2)
Ethics	0 (0)	2 (3.8)	51 (96.2)
Communication skills	0 (0)	4 (7.5)	49 (92.5)
Emotional intelligence	0 (0)	11 (20.8)	42 (79.2)

Conflict of Interest

The authors declare no conflict of interest.

Authors' Declaration

The authors hereby declare that the work presented in this article is original and that any liability for claims relating to the content of this article will be borne by them.

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