SANITAS: JURNAL TEKNOLOGI DAN SENI KESEHATAN
ISSN : 1978-8843 (*PRINT*) / 2615-8647 (*ONLINE*) **Vol. 14 (1). 2023: 53-71**

ANALYSIS OF FACTORS INFLUENCING THE QUALITY OF PHARMACEUTICAL SERVICES AT PHARMACY OUTLETS IN KOTAMADYA TANGERANG

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Submitted: May 12th 2023 ; Accepted: July 28th 2023

https://doi.org/10.36525/sanitas.2023.6

ABSTRACT

Pharmaceutical services at pharmacies in several regions of Indonesia are still low, that is un-equal to the growth of the establishment in pharmacies, which continues to increase. The four sub-sectors which coverage in pharmaceutical services include non-prescription drug service standards, KIE services, and prescription service and drug management standards in pharmacies. This *cross-sectional* study was carried out in Tangerang area to determine the factors that influence the quality of pharmaceutical services, with a total of 68 pharmacists serving in 68 pharmacies. The characteristics of pharmacists are conducting by using *questionnaire* and *observation*. The results obtained for pharmacist characteristics were 72.1% with age 26-35 years, 80.9% female, 94.1% having undergraduate and professional degree and 98.53% had worked as license pharmacist / pharmacist on duty ≤ 10 years. The quality of pharmaceutical services is 48.5% in the good category and the pharmacist (license pharmacist / pharmacist on duty) presence factor is the most dominant variable that influencing the quality of pharmaceutical services (OR-58.3 with p-value=0.002), while the ones which not affecting are license pharmacist / pharmacist on duty motivation and pharmacy ownership status (p> 0.05).

Keywords: Pharmaceutical Services, Pharmacy, Pharmacist (license pharmacist / pharmacist on duty).

INTRODUCTION

Pharmaceutical services begin to change their orientation from drug oriented into *patient oriented*. The exchange of this paradigm is known as Pharmaceutical Care or pharmaceutical service care (1), which actually is a direct and responsible service to patients related to pharmaceutical preparations with the aim of achieving definite results to improve the quality of patient's life (2).

Pharmaceutical services are considered below the standard, because pharmacists have not performed their functions optimally and the full responsibility of license pharmacist/pharmacist on duty hereinafter referred to as pharmacists in providing drug information to the public has not been carried out properly either (3). Some researchers revealed that the pharmacy has turned into a kind of shop, which contains all classes of drugs (either over-the-counter, ethical, psychotropic or narcotics) with services that do not refer to professional rules because pharmacists do not conduct them(4).

Until now it has been aware that pharmacists still do not work full time or being present every day at pharmacies, as is the case with research in DKI Jakarta in 2003, showing that license pharmacist / pharmacist on dutys who do not work full time or less than 40 hours per week in providing pharmaceutical services are still quite large. Namely, as much as 76.5% and pharmacies whose pharmacists work full time only 23.5%. The frequency of pharmacist's attendance who were not fully employed included 12.8% who came twice a week; 57.4% attending once a week; 2.1% attend 2 times per month, 23.4% attend 1 time per month and the remaining is 4.3% attend 1 time per two months (5). On the other hand, pharmacists also have the responsibility to conduct education as an aspect of home pharmacy care, so that it will produce good and positive behavioral values (6).

Pharmaceutical services have not received serious attention from the government. This is shown in the Ministry of Health's 2013 *Performance Accountability Report*, which illustrates that out of 4953 government-owned basic health service facilities in Indonesia; only 605 have pharmacists who are in charge of their pharmaceutical installations (7).

A research in regard of description of pharmaceutical services implementation in pharmacies was conducted in DKI Jakarta in 2003 (8). It was found that 76.5% of pharmacies

did not meet non-prescription drug service standards, 98.5% pharmacies did not meet the requirement of IEC *(information, education, and communication)* service standards, 67.6% pharmacies did not fulfil the standards of prescription drug service and 5.8% pharmacies did not meet drug management standards in pharmacies. Based on the average of the four pharmaceutical service sub-sectors, an average value of 61.02 was obtained, so that it was included in the unfavorable category. Similar research in West Sumatera (9)(10), found that in Padang, they had not implemented pharmacy services properly at pharmacies, the outlet with good category [≥85] is of 3%, moderate [65-85] 16%, and poor [≤65] 81%. The research revealed that several underlying supporting factors were: (a). Pharmacist motivation at work, (b). The Support of pharmacy owners and staff, (c). the commitment of all stakeholders (policy or regulation makers, socialization by government, monitoring and coaching, including universities and professional organizations). Some of the inhibiting factors found are; (a). Pharmacists have not played significant role in pharmacies, (b). Less support and evaluation by pharmacy management, (c). Procurement of facilities and infrastructure, (d). Lack of socialization, legislation, and lack of regulatory control by related officials.

Pharmaceutical services that have not been maximized are also shown by research conducted in the Province of NTB, regarding pharmaceutical services at Class C of Regional Public Hospitals in West Nusa Tenggara Province (2012). This study found that pharmaceutical services at these hospitals had not been implemented properly. The percentage of achieving pharmaceutical service standards from those of three hospitals is still less than 75%, namely 52.17% for Hospital A, 54.78% for Hospital B and 44.35% for Hospital C. This study found that several factors inhibiting the optimal implementation of pharmaceutical services is: (a). Less support from hospital management for pharmaceutical services, (b). Inadequate provision of supporting facilities and infrastructure for pharmaceutical services, (c). Insufficient number of pharmacists in pharmaceutical installations, (d). Inadequate pharmaceutical installation documentation system, (e). Lack of evaluation continuity effort to improve the performance of pharmaceutical installations in providing pharmaceutical services (11).

Research in Denpasar and Badung regency (Bali) regarding the presence of pharmacists was found that the pharmacists' attendance was still very low. Out of a total of 111 pharmacies in North, South, East and West Denpasar, North & South Kuta, there were only 24 pharmacies [26.64%] had presence pharmacists at the time of the survey (12)(13).

From various descriptions of the researches conducted above, several factors were found related to the quality of pharmaceutical services, including: capital ownership, the presence of pharmacist, the role of pharmacy owner, other occupations and motivation of pharmacist to perform pharmaceutical services (8).

One of health facilities in Kotamadya Tangerang whose number has increased is actually pharmacy outlets. Data from the *Municipality Integrated Licensing Service Agency* (BPPT/*Badan Pelayanan Perizinan Terpadu* (Tangerang, 2016) recorded that 301 pharmacies were officially registered at BPPT office (14). However, the elevating number of pharmacies has not been accompanied by an increase in the quality of pharmaceutical services in Tangerang City pharmacies. Several factors are known like (1). The Presence of pharmacist (2) Occupation status of pharmacist (concurrent or non-concurrent), (3) Motivation of pharmacists in performing or conducting pharmaceutical services and (4). The factor of pharmacy ownership will affect the quality of pharmaceutical services of pharmacies in Kotamadya Tangerang area.

Regarding to all of informations above, therefore the research of this *cross-sectional* study was carried out in Tangerang City area to determine the factors that influence the quality of pharmaceutical services based upon the "Regulation of Pharmaceutical Service Standard in Pharmacies (2).

METHODS

This is an observational study using survey methods and the design used to determine the effect of independent variables to dependent variable is an *analytic cross-sectional* (15). The population in this study was all pharmacists of those of 301 outlets in Kotamadya Tangerang, (Province of Banten). Sampling was done randomly by *Systematic Random Sampling*. Determination of number of samples is calculated based on the sample size formula (16), which is as follows:

$$n = Z^2_{1-\alpha/2}\ P\ (1-P)/d^2$$
$$= (1{,}645)^2\ .\ (0.5)\ (1\text{-}0.5)\ /\ (0{,}1)^2 = 68 \text{ pharmacies}$$

Inclusion criteria for the samples are pharmacists who served in pharmacies as license pharmacist / pharmacist on duty and were willing to be the respondents. While the exclusion criteria are pharmacists who served as only as Associate Pharmacists (APING = *apoteker pendamping*) in the outlet or aphotic. Data processing was carried out with T-test Anova using SPSS application, precisely is by Univariate, Bivariate and Multivariate Analysis. To examine the hypothesis, a statistical test is carried out with the provisions, if p value ≤ α (0.05) then Ho is declined, meaning that there is a significant difference, if p value > α (0.05) then Ho is accepted, meaning there is no significant difference (7). The magnitude of risk factor of an event is measured using the Odds Ratio (OR). The provisions are, if the OR value = 1, the estimate is that there is no effect between the risk factors and the cases. If OR > 1, estimate that there is a positive influence between the risk factor and the case and if OR < 1, estimate that there is a negative relationship between risk factors (17).

The *questionnaire* was designed by the researcher of which referred to the guidance of The Regulation of Pharmaceutical Service Standard in Pharmacies of Ministry of Health, 2008. The indicator of the *questionnaire* can be said as valid if the value of *r* counted is higher than *r* table.

Pharmacy service quality as the dependent variable is considered good based on a score ≥ 61 and is considered poor if a score below than the obtained standard. The independent variables of (1). Predisposing Factors can be seen from: (a). whether or not license pharmacist/pharmacist on duty attends (comes) for conducting pharmaceutical services at the pharmacy, included: prescription services, drug services, KIE, management of pharmaceutical preparations and medical supplies. (b). Pharmacist motivation which viewed by pharmacist reasons for providing pharmaceutical services at pharmacies. (2) Enabling Factors, based upon (i). Pharmacist occupation status by observing several positions and job responsibilities held by pharmacists, e.g. as a civil servant, or pharmacist elsewhere and (ii). Pharmacy ownership that can be seen from the status of pharmacy facilities ownership and infrastructure.

RESULTS AND DISCUSSION

1. Characteristics of Research Subjects (Respondents), Pharmacist Presence, Motivation, Occupation Status, Pharmacy Ownership and Quality of Pharmaceutical Services

In this study, a survey was conducted to 68 Pharmacists on Duty (license pharmacist / pharmacist on duty) in Kotamadya Tangerang pharmacies; an overall description of the respondents is presented in the following table:

Table 1. Characteristics of Pharmacist in Kotamadya Tangerang

Characteristics of Pharmacist (license pharmacist / pharmacist on duty)	N (68)	%
Pharmacist Age		
26-35 y.o	49	72.1
36-50 y.o	16	23.5
> 50 y.o	3	4.4
Sex (Gender)		
Male	13	19.1
Female	55	80.9
Degree of Education		
S1+ Profession	64	94.1
S1+ Profession + S2	4	5.9
Years of Service		
≤ 10 y.o	67	98.53
11-20 y.o	0	0
21-30 y.o	0	0
> 30 y.o	1	1.47

Source: Primary Data

The Characteristics of Pharmacists age in Tangerang City is range between 26-59 years. The highest number of license pharmacist / pharmacist on duty was found in category of between 26-35 years, with the total of 49 license pharmacist / pharmacist on duty's (72.1%). The average is 32 years, SD (± 8.151). The distribution of sex characteristics of pharmacist on duty, belongs to female group (80.9%) which higher than the male's (19.1%).

Based upon Pharmacist Level of Education, the pharmacist with undergraduate and professional degree has 94.1%, while the distribution of service time being a license pharmacist / pharmacist on duty is known less than one year (8 months) and the longest is 27 years, with an average value of 2 years, SD (±3.82). The highest service time data being pharmacist is ≤ 10 years (70.59% = 67). While the lowest is > 30 years to become a pharmacist, namely license pharmacist / pharmacist on duty (1.47%).

It had been performed the variables test due to Pharmacist attendance, motivation occupation status & pharmacy ownership, which the results obtained shown within the table.

Table 2. Bivariate Test on Factors Which Influencing the Quality of Pharmaceutical Service

VARIABLE	SCORE of Pharmaceutical Service Quality		TOTAL	O.R (CI 95%)	p_value
	NOT GOOD	**GOOD**			
Pharmacist Attendance					
- Attendance 0	17 (85.0%)	3 (15.0%)	20 (100%)	1.0	
- Attendance 1	4 (57.1%)	3 (42.9%)	7 (100%)	74.75 (7.5 – 741.4)	0.000
- Attendance 2	4 (23.5%)	13 (76.5%)	17 (100%)	30.66 (2.5 – 373.5)	0.007
- Attendance 3	1 (4.2%)	23 (95.8%)	24 (100%)	130.33 (12.4 – 1364.4)	0.000
Pharmacist Motivation					
- Less than Good	3 (75%)	1 (25%)	4 (100%)	3 (0.2 – 30.3)	0,614
- FINE (GOOD)	32 (50%)	32 (50%)	64 (100%)		
Occupation Status					
- Non concurrent	6 (19.4%)	25 (80.6%)	31 (100%)	15.1 (4.6 – 49.4)	0,00
- Concurrent	29 (78.4%)	8 (21.6%)	37 (100%)		
Pharmacy Ownership					
- by Pharmacy Owner	35 (53.0%)	31 (47.0%)	66 (100%)	0.47 (0.36 – 0.60)	0,232
- by Pharmacist	0 (00.0%)	2 (100%)	2 (100%)		

Source: Primary Data

Based on bivariate test which has been carried out, it shows that the higher presence time of license pharmacist / pharmacist on duty, the more frequently pharmacist will perform

pharmaceutical services at pharmacies, therefore the quality of pharmaceutical service at pharmacies is also getting better. The better of pharmacist attendance rate, the greater opportunity for pharmaceutical service quality. This is supported by the increasing O.R value. From the O.R value it can be seen that pharmacists with zero attendance (not present at all) have tendency or opportunity to produce Good Service Quality only 1 time. License pharmacist / Pharmacist on duty with the presence of 1 have opportunity to produce Good Service Quality score is 74.75 times. Meanwhile, category of attendance 2 has a tendency to produce Good Quality of 30.66 times (p-value = 0.007), while Pharmacists with attendance 3 have opportunities for good service quality, namely 130.33 times.

Pharmacists with Good Motivation and Non-Concurrent jobs status will provide opportunities to conduct better pharmaceutical services compared to license pharmacist / pharmacist on duty's whose motivation are less than good and also have multiple (concurrent) occupations. The data in the table above also shows that out of 4 license pharmacist / pharmacist on duty with Poor Motivation score, only 1 pharmacist (25%) has good quality score, while out of 64 pharmacists with Good Motivation values, there are 32 pharmacist (50%) who have Good Quality scores, as well as Good Service Quality. This means that the proportion of good Pharmacy Service Quality of pharmacist with a Good Motivation score is greater than the proportion in the pharmacist category with Poor Motivation. Eventhough there is a proportional relationship, the statistical test results show that there is NO relationship between the Quality of Pharmacy Services and motivation factors (p = 0.207). However, the opportunity for pharmacies to provide good quality pharmaceutical services to the license pharmacist / pharmacist on duty group with good motivation is 3 times compared to the group with poor motivation.

From the factor of pharmacist's employment status, the license pharmacist / pharmacist on duty category who does not hold concurrent occupations will provide good quality pharmaceutical services (80.6%) compared to the license pharmacist / pharmacist on duty group that concurrently (21.6%). From the O.R value, it can be seen that the license pharmacist / pharmacist on duty status has a tendency (opportunity for pharmacies) to

produce Good Service Quality score, which is 6.1 times compared to pharmacist status with Concurrent Employment.

The influence of pharmacy ownership on the quality of pharmaceutical services shows that pharmacies owned by pharmacists themselves (license pharmacist / pharmacist on duty) will provide better quality on pharmaceutical services (100%) compared to the ones owned by pharmacy owner (47.0%).

3. Multivariate Test of Influencing Factors on the Quality of Pharmacy Services

Multivariate analysis was conducted to determine the effect of each independent variable (Pharmacist presence, status, and ownership factor) to dependent variable, namely the quality of pharmaceutical services in pharmacies. Multivariate test results can be seen in the following table.

Table 3. The Results of Multivariate Analysis Factors of Pharmacist Attendance, Motivation, Occupation Status, and Pharmacy Ownership on the Quality of Pharmaceutical Services at Pharmacies

VARIABLE	O.R	95% CI	p – value
PHARMACIST Attendance			
- NOT every day present NEITHER conducting pharmaceutical service	3.7	0.4 – 30.3	0.210
- NOT every day present BUT conducting pharmaceutical service	1.8	0.3 – 10.9	0.493
- EVERY DAY present AND conducting pharmaceutical service	58.3	4.7 – 721.4	**0.002**
PHARMACIST Motivation			
- Good	10.4	0.2 – 339.9	0.207
PHARMACIST Occupation Status			
- Not Concurrently Employment	6.1	1.3 – 30.3	**0.026**
PHARMACY Ownership			
- Owned by pharmacy owner	38426265	0.000	1.000

Source: Primary Data

Table 4. Multivariate Analysis Result of **PHARMACIST (**license pharmacist / pharmacist on duty) Attendance and Occupation Status Factors that Influencing on the Quality of Pharmaceutical Service at Pharmacy

Variable	O.R	95% CI	p - value
PHARMACIST Attendance			
- Presence 3	35.071	3.5 – 347.9	0.002
PHARMACIST Occupation Status			
- Non Concurrently Employment	6.364	1.3 – 30.3	0.020

Source: Primary Data

3.1 The Influence of PHARMACIST Presence Factors on the Quality of Pharmaceutical Services at Pharmacies

The opportunity for pharmacies to be able to provide good quality pharmaceutical services is 58.3 times for license pharmacist / pharmacist on duty who's present at the pharmacy compared to the un-present pharmacists (that also statistically significant, with *p value = 0.002*).

The pharmacist presence factor has an influence on the quality of pharmaceutical services in pharmacies. The results of research conducted at pharmacies in kotamadya Tangerang shows us the better level of license pharmacist / pharmacist on duty attendance, the better chances of quality on pharmaceutical services. The higher level of pharmacist's presence in the pharmacy, the greater opportunity for the pharmacy to be able to provide good pharmaceutical services. The opportunities to be able to provide good quality pharmaceutical services for pharmacists who always present at the pharmacy are 130 times better than those who do not attend every day.

The factor on which causes pharmacist not attending the pharmacy might be because the salary given is still below than standard and is not yet enough to fulfil the daily life needs. The absence of a pharmacist at the pharmacy is due to the lack of compensation given to the pharmacists by the owners of pharmacy, where it is considered unable to meet the necessities of life if it only they work in 1 place. Therefore, pharmacists choose not to be present at the pharmacy so that they can work elsewhere to fulfil the daily life needs.

When the employee's needs are not fulfilled, the employee will show disappointed behavior such as not complying with company rules. Conversely, if the employees already feel their needs are met, the employee will tend to show happy behavior, such as trying to comply with company rules that show satisfaction. The company provides compensation to its employees as a matter of fact is with the aim of increasing work performance. If the compensation given is in accordance with the results of the work obtained, then employee satisfaction will increase. Along with the increased satisfaction, employees will also feel comfortable and happy to work in the company so that it will automatically affect the company's performance (18).

The compensation provided by the company is one factor that is also related to e pharmacist motivation to attend and perform pharmaceutical services at the pharmacy. If the compensation given is appropriate, it is likely that pharmacist will be more motivated to attend and provide services at the pharmacy(13). The role of pharmacists to be present and provide direct services to patients has been shown to have an influence in improving the quality of pharmaceutical services in pharmacies. Based on the research carried out at some of pharmacies in Jakarta, direct interaction between pharmacists and patients at the outlets is still lacking, because there are still many pharmacy services performed by pharmacist assistants (83.82%) (19).

Pharmacists should be present and able to provide pharmaceutical services at the pharmacy. However, there are still many pharmacies where the pharmacistsdo not provide pharmaceutical services (20). Pharmacists have a central role in realizing pharmaceutical services in accordance with pharmaceutical care, which pharmaceutical services should be more focus to *patient-oriented*. In this case, direct interaction between pharmacist and patient at the pharmacy is needed so that it is hoped the goals of treatment can be achieved and the quality of life of patients will be better (21). To realize this, the presence of pharmacists in pharmacies is one of the important factors in regard for the good quality pharmaceutical services in pharmacies can be realized.

The pharmacist's absence from the pharmacy was also influenced by the ownership factor. Based upon the research conducted at pharmacies in Denpasar and Badung regency (Bali), from interviews it was found that pharmacist absence at the pharmacy was due to the fact that the pharmacy was not owned by pharmacists but belonged to Pharmacy owners. In that study, 81.25% of the surveyed pharmacies were belonged to Pharmacy Owner. This shows that the pharmacy ownership factor indirectly influences the level of pharmacist presence in the pharmacy. If the pharmacy is owned by the pharmacists themselves, the presence rate of pharmacists in the pharmacy will be higher than owned by the pharmacy owner (12).

The similar condition was described in a study conducted at pharmacies in Medan (2008). The results of the study describe the characteristics of pharmacies which shown that the application of pharmaceutical services in pharmacies has not been implemented optimally and influenced by the pharmacist presence factor, where the presence pharmacist in Medan is known to have a low enough effect on the quality of pharmaceutical services there. In this study, the low of pharmacist on duty attendance factor was also caused by the pharmacy ownership factor (22).

In general, the pharmacies managed by pharmacy owner are where pharmacy owners tend to prioritize profits or the business side instead of the service quality provided. Additionally, the average number of prescriptions per day is less than 20 and there are usually only prescriptions at certain hours so that pharmacy services are mostly carried out by assistant of pharmacists (22).

The change of pharmacy function from a more dominant on social orientation has now become to business orientation. This situation (phenomena) has resulted in the role of pharmacists who are being considered as not really important for the patients, as long as the pharmacy business managed continues to run, thereby the lack of pharmacy owner support in this case demands that pharmacists play a more active role in pharmacies by being present at the pharmacy every day is twice as much (66.18%) compared to pharmacy owner which requires pharmacists to be present every day (33.82%). Pharmacists should be present and able to provide pharmaceutical services at pharmacies. However, there are still many pharmacies

which in the practice of pharmaceutical services are not performed by pharmacists (20). Pharmacists have a central role in realizing pharmaceutical services in accordance with pharmaceutical care, namely pharmaceutical services that are expected more to be for patients-oriented. In this case, direct interaction is needed between pharmacist and patient at the pharmacy, so that the expected goals treatment can be achieved and the patient's quality of life improves (21). To obtain this one, the presence of pharmacists in pharmacies is one of the important factors as for the good quality pharmaceutical services in pharmacies can be realized

3.2 The influence of pharmacist motivational factors on the quality of pharmaceutical services at pharmacies

In addition to pharmacist presence and motivation, reward factors and status are also related. Pharmacist's perceived lack of compensation encourages pharmacists to be able to achieve daily life needs by doing other works besides being as the pharmacist, both main and side jobs. status which concurrently works in other places is likely to affect pharmacist presence in the pharmacy due to the limited time of working in two different places (12)(13). The influence of pharmacist motivational factors, pharmacist group with good motivation has a 10.4 times chance to provide good pharmaceutical services compared to pharmacist group with less of motivation.

According to Hasibuan in 2007 (22) motivation is desire stimulation Providing driving force that creates enthusiasm for one's work so that they want to work together, work effectively and be integrated with all their efforts to achieve satisfaction. A motivation arises as the energy to arouse one's self-esteem.

Motivation is a condition that influences a person's behavior related to the environment. The level of one's motivation in life is a natural thing, but what is more important is how to stay motivated, as well as at work. Work pressure, negative thoughts, demotivation among employees, and many other things that can reduce employee motivation levels. Lack of employee motivation at work can affect productivity, resulting in employees for not working optimally. Every company strives to get employees who can provide work performance in the form of the highest work productivity possible to achieve company goals. By increasing productivity, it is hoped that the goals of the company will be achieved and can increase the goods or services produced. The

productivity of company employees is influenced by three factors: the quality and ability of employees, facilities and infrastructures, as well as the company environment (23). In this study, good motivation was found among of 94.1% license pharmacist / pharmacist on duty, which could be a good support for pharmacy services are also good.

Pharmacists play an important role in the management and delivery of pharmaceutical services in pharmacies, which also being as very valuable asset and certainly must be managed properly for that they can make an optimal contribution to the pharmacy. One of the things that must be the main concern of pharmacist motivation in working. If pharmacists do not feel comfortable at work, are not valued, or either can't develop all their potential, then they cannot focus and concentrate fully on their work automatically. Lack of motivation resulted in pharmacists not being optimal at work would affect the quality of pharmaceutical services of the pharmacists to patients. Good motivation needs to be created, therefore it has an impact on employee work performance in regard of obtaining an optimal work productivity to realize the goals of the pharmacy. By increasing productivity, it is hoped that the goals of a company, in this case a pharmacy, will be achieved, which is providing good pharmaceutical services so that the goals of patient treatment can be achieved.

The results of this study indicate that the good pharmacists' motivation group can provide opportunities for good pharmaceutical services thrice (3 times) compared to the less motivated pharmacists group. Within a well-motivated license pharmacist / pharmacist on duty group, the proportion with good pharmaceutical service quality (50%) was higher than one of less-motivated license pharmacist / pharmacist on duty group (25%). Pharmacists' motivation in providing pharmaceutical services as a form of health behavior based on *Lawrence Green's Theory* is influenced by 3 main factors, namely predisposing factors, enabling factors and reinforcing factors. Predisposing factors consist of pharmacists' knowledge, attitude and salary. Enabling factors consist of pharmacy turnover, bonuses given by the company, pharmacy facilities, number of visiting patients, total of prescription sheets per day, as well as the situation and working relationship between employees in the pharmacy. The reinforcing factors consist of training that pharmacists has attended related to pharmaceutical services, regulations related to the quality of pharmaceutical services and

the role of IAI in supervising and guiding pharmacists to be able to carry out their role in providing quality pharmaceutical services.

Similar research shows that one of the factors which influencing the implementation of pharmaceutical services in pharmacies is pharmacist motivation (20). In addition, other research conducted at different places and scopes shows that work motivation has a significant effect on employees' performance at PT. AXA Financial Indonesia (24) and there is a positive correlation between the effects of employee motivation on the productivity of the textile company of PT. Unggul Rejo Wasono in Purworejo(25).

3.3 The Influence of Pharmacists Employment Status Factors on the Quality of Pharmaceutical Services in Pharmacies

For pharmacists employment status, the opportunity for pharmacies to provide good quality pharmaceutical services to the non-concurrent employment pharmacists group is 6.1 times compared to the concurrent ones (*p-value* = 0.026). One of the reasons pharmacists are rarely present at pharmacies is because pharmacists have other occupations outside of the pharmacy. Until now there are still many pharmacists who concurrently conducting their profession. According to Riyanto in 2009 (25), he stated that pharmacists who work in a pharmacy is not as the main job. Work time is more focused on main job in the outside the pharmacy. A pharmacist can work as a civil servant, private employee or entrepreneur. Therefore, working hours at the pharmacy are usually done after the main working time is over and it's only a few hours (26).

Government Regulation of the Republic of Indonesia Number 51 of 2009 concerning Pharmaceutical Work Article 54 states that the pharmacist as the person in charge *(pharmacist on duty)* can practice pharmacy at only one, either at the pharmacy, community health center (Puskesmas), or hospital pharmacy installation. Meanwhile, assistant pharmacists can also have pharmaceutical practices at three of work places for the most, either at pharmacy, community health center, or hospital pharmacy installations (27), however, judging from other studies, it is known that many pharmacists are also civil servants, or at other of private companies, military and so on (5).

Other regulations related to pharmaceutical work emphasize that in conducting their professional practice as pharmacist on duty at pharmaceutical service facilities may not concurrently, which is regulated in the Decree of the Minister of Health of the Republic of Indonesia number 1332/MENKES/SK/X/2002 Articles 7 and 9 concerning Provisions & Procedures for Dispensing Pharmacy Permit that for filing a Pharmacy Permit (SIA) that one of the conditions is stated: the pharmacy must attach a Statement from the owner that they do not concurrently work in other pharmacies (or industries) and is able of becoming as license pharmacist / pharmacist on duty in a pharmacy (27). Doing or not concurrently serving as a pharmacist in charge greatly influences work productivity in the pharmacy, thereby affecting the quality of pharmaceutical service itself at the pharmacy.

According to Handayani et al (2006) (28), in the Pharmacists group who concurrently held positions, the only activities carried out at the pharmacy were managing the pharmacy and providing guidance to pharmacist assistants. Whereas in the pharmacists group who did not hold concurrent roles, the activities conducting in the pharmacy included all pharmacy activities such as drug and prescription services, medical information, and up to pharmacy management activities starting from procurement, distribution, storage and medicines demolition. Pharmacists who are concurrently employment cannot focus on work in the pharmacy, so they cannot take all pharmaceutical service activities in the pharmacy compared to pharmacists who do not have concurrent jobs. The quality of pharmacy services in the non-concurrent employment license pharmacist / pharmacist on duty group is better than the quality of pharmaceutical services in the concurrent ones.

3.4 The Effect of Pharmacy Ownership Factors on the Quality of Pharmaceutical Services at Pharmacies

Based on the results showed, in pharmacies owned by pharmacists themselves, a proportion of good pharmaceutical service quality was the highest (100%) compared to pharmacy owned by pharmacy owner (47%). The opportunity for pharmacies to be able to provide good pharmaceutical services in this study is 0.47 times for pharmacy ownership by pharmacist, compared to ownership by pharmacy owner, but this is *not statistically significant* because the comparison between the number of sample of pharmacies and pharmacist owners is very small (2 pharmacies) compared

to pharmacies owned by pharmacy owner (66 samples). The pharmacist, in this case is only acts as the manager or license of pharmacist. A pharmacy managed and owned directly by provides better quality of pharmaceutical services compared to pharmacies owned by pharmacy owner.

Pharmacy is a pharmaceutical service facility where pharmacists could practice pharmacy activities, (1). Pharmacy is a business engaged in services, especially pharmaceutical services. There are many types of ownership in pharmacy management, including pharmacies owned by pharmacy owner, pharmacies directly owned by license pharmacist / pharmacist on duty, pharmacies whose ownership consists of license pharmacist / pharmacist on duty and also pharmacy owner. Research conducted at pharmacies in Province of Nangroe Aceh Darussalam showed the results of bivariate analysis that there was a significant relationship between ownership status of pharmacy facilities and pharmacist performance. And from the multivariate analysis, the status of pharmacy ownership is also the most dominant variable that has a relationship to the performance of pharmacists in pharmacies (29). Obtained service score is influenced by the capital ownership of the pharmacy and the presence of license pharmacist / pharmacist on duty. Pharmacists who own partly or all the capital of the pharmacy tend to have better service quality and pharmacists are more likely to attend the pharmacy (8).

Based on the *Classical Theory of Managerial Firm* quoted from Darmawati et al in 2005 (30) there are 2 types of ownership in a business or company, they are type 1, companies managed by a management and type 2, companies managed by direct owners. This theory also explains that there are differences in the performance of companies managed by the management and companies directly managed by the owner of the company. The type of ownership affects the performance of the company. Companies that are controlled by their owners will produce better company performance with higher productivity levels compared to companies that are managed by a management.

Research on the analysis of the influence of ownership structure on company performance is known that ownership structure has a significant influence on company performance. The higher proportion of the company share ownership, the better the company's performance. The size of managerial share ownership in a company can indicate a common interest between management and shareholders or company owners (29).

Based on the multivariate test that has been done, it shows that the four independent variables pharmacist presence, motivation, status of occupation and pharmacy ownership factors have an influence (with an O.R > 1), therefore they can increase the chances of the dependent variable (quality of pharmaceutical services in pharmacies).

CONCLUSION

It was found that 35 pharmacies (51.5%) in Tangerang regency (Kotamadya Tangerang) had pharmaceutical services that were still not in accordance with the standards based upon the Minister of Health Regulation Number 73 of 2016. There were several influencing factors, namely: the presence of pharmacists which is the variable that most dominantly influences the quality of pharmaceutical services (O.R-58.3 with *p-value*=0.002) and pharmacists occupation status who are not concurrently employment provide good quality pharmaceutical services (80.6%) compared to the group with dual or multi of occupations (21.6 %). Therefore, IAI's participation in this matter is certainly needed in bridging-up the gap between pharmacist and the owner.

ACKNOWLEDGE

Acknowledgments are addressed to PC IAI Kotamadya Tangerang and all of the respondents who are willing to help and co-operate with this research.

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