

## LITERATURE REVIEW: PUBLIC PERCEPTIONS OF THE ROLE OF PHARMACISTS IN PHARMACIES

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### ABSTRACT

*The role of pharmacists in community pharmacies is evolving from product-oriented to pharmaceutical care. However, the success of this role expansion is greatly influenced by public perception, expectations, and trust in pharmacists. Objective: This literature review aims to examine public perception of the role of pharmacists in pharmacies and summarize the factors that influence it as a basis for strengthening the quality of pharmaceutical services. Method: The study used a literature review design. Articles were searched through PubMed, ScienceDirect, MDPI, and Google Scholar using keywords related to public/patient perceptions of the role of pharmacists in pharmacies. Articles were screened based on inclusion-exclusion criteria, duplicates were removed, then data extraction (author/year, location, design, sample, instrument, findings) and thematic narrative synthesis were performed. Results: In general, public perception of the role of pharmacists tends to be quite good, especially in prescribing services and providing drug information. However, understanding of the clinical role of pharmacists (comprehensive counseling and therapy monitoring) is still not optimal, so that the role of pharmacists is often perceived as limited to drug dispensing. Cross-country studies show that public perception is generally positive towards pharmacist competence, but the level of public trust in pharmacists as drug therapy consultants is relatively lower than that of doctors. Educational factors, interaction experience, and communication quality influence perception and trust. Conclusion: Public perception of pharmacists in pharmacies is relatively good, but traditional roles are still dominant. Strengthening the clinical role requires more consistent counseling, pharmacist visibility in service areas, and public education on the benefits of comprehensive pharmaceutical services.*

*Keywords: public perception; pharmacist; community pharmacy; pharmaceutical services; pharmaceutical care.*

## I. INTRODUCTION

Pharmacies are health service facilities that have a strategic role in ensuring the availability and public access to safe, high-quality, and rationally used medicines. (Ariyani, 2022) In the health care system, pharmacists hold professional responsibilities not only in the provision and delivery of drugs, but also in the provision of patient-oriented pharmaceutical services (patient-oriented care), which includes prescription assessment, provision of drug information, counseling, and monitoring of drug therapy. (El-Kholy et al., 2022) The role of pharmacists in community pharmacies has experienced a paradigm shift from a product-oriented approach to pharmaceutical care. (Andrzejewska et al., 2022) The success of implementing this role is greatly influenced by public perception of pharmacists as health workers. (Pratiwi, Mustikaningtias, Fajri Rifki Widyartika, et al., 2020) Public perception reflects the level of knowledge, experience, expectations, and trust in the pharmacist profession, which directly influences the use of pharmaceutical services in pharmacies. (Almohammed & Alsanea, 2021)

A number of studies in Indonesia show that public perception of the role of pharmacists in pharmacies is generally in the adequate to good category, especially in the aspect of providing drug information and prescription services. (Pratiwi, Mustikaningtias, Fajri Rifki Widyartika, et al., 2020) However, public understanding of the clinical role of pharmacists, such as comprehensive counseling and drug therapy monitoring, is still less than optimal. This condition indicates that the role of pharmacists is still often perceived as limited to the function of dispensing drugs. (Nadia et al., 2025a) Research conducted in various countries also shows varying public perceptions of the role of pharmacists. Studies in Poland,

Saudi Arabia, India, Kuwait, and Nigeria reported that the public generally has a positive perception of pharmacists as friendly, accessible, and competent healthcare professionals. (Almohammed & Alsanea, 2021; El-Kholy et al., 2022) However, the level of public trust in pharmacists as drug therapy consultants is still relatively low when compared to other health workers, especially doctors. (Hutami & Rokhman, 2013; Woodford et al., 2005)

In addition, several studies have revealed a gap between public expectations and pharmaceutical service practices received in pharmacies. (Nadia et al., 2025a) The public has high expectations of the role of pharmacists in providing counseling, education on drug use, and prevention of drug-related problems, but these services are not yet fully felt evenly. (Yngwie et al., nd) Factors such as education level, experience of interacting with pharmacists, and quality of communication have been proven to influence the formation of public perceptions and levels of trust. (Narwadan et al., 2025)

Based on these findings, this literature review was conducted to examine public perceptions of the role of pharmacists in pharmacies, based on previously published research. This study is expected to provide a comprehensive overview of public perceptions, expectations, and trust in pharmacists, as well as serve as a basis for efforts to strengthen the role of pharmacists and improve the quality of pharmaceutical services in community pharmacies. (Noviyanto et al., 2024)

## II. METHOD

This study used a literature review method. Articles were obtained through searches in PubMed, ScienceDirect, MDPI, and Google Scholar databases using keywords related to public/patient perceptions of the role of pharmacists in pharmacies. All articles found were screened using inclusion and exclusion criteria (e.g., recency of publication year, full-text availability, and topic relevance), then duplicates were removed and eligible articles were reviewed in full. Key information from each article was extracted, including author and year, location, study design, sample characteristics, instruments, and key findings. Data were then synthesized narratively by grouping the results into themes such as general perceptions of pharmacists, understanding of clinical roles, factors influencing perceptions, and implications for improving pharmacy services. (Pharmacy, nd)

**RESULTS**

No.	Writer	Title	Objective	Time and Location	Method	Results
1	Rizka Aryani. Year: 2022 Journal: Health Research Suara Forikes.	Patient Perceptions of the Role of Pharmacists in Pharmaceutical Services at Community Health Centers.	The aim of this study is to measure patient perceptions (awareness, expectations, beliefs) regarding the role of pharmacists in pharmaceutical services in several community health centers (Puskesmas) in West Semarang area.	Location: 7 Community Health Centers in the Semarang area West Time: March to June 2021.	This type of research is observational research using a cross-sectional design.	The research subjects were 120 patients selected using consecutive sampling techniques. Data were collected by filling out a questionnaire. Descriptive scoring and analysis were then conducted. The results showed that patient perceptions of the role of pharmacists in pharmaceutical services at the West Semarang Community Health Center were in the high category, viewed from the aspects of awareness, expectations, and trust. Patients had a good level of awareness regarding the existence and function of pharmacists, high expectations regarding the competence and role of pharmacists in providing information and monitoring drug therapy, and a strong level

						of trust in the professionalism of pharmacists. Correlation analysis showed a significant relationship between awareness and expectations ( $p = 0.002$ ; $r = 0.277$ ), awareness and trust ( $p = 0.038$ ; $r = 0.190$ ), and a strong relationship between expectations and patient trust in the role of pharmacists ( $p = 0.000$ ; $r = 0.696$ ). These findings indicate that the higher the patient's expectations of pharmaceutical services, the greater the patient's trust in the pharmacist's role in supporting the success of therapy and the quality of health services. (Ariyani, 2022)
2	Amal A. El-Kholy et al. Year: 2022 Journal: Medicina	Publics' Perceptions of Community Pharmacists and Satisfaction with Pharmacy Services in Al-Madinah	The aim of this study was to assess public perception of the role of community pharmacists and to measure the level of public satisfaction with pharmaceutical services provided in community	Place: This research was conducted at a community pharmacy in Al-Madinah Al-Munawwarah City, Saudi Arabia. Time: January-June	The research method used was an observational study with a cross-sectional design. This study was conducted on people visiting community	The study results showed that the public has a positive perception of community pharmacists and pharmaceutical services, with a relatively good level of satisfaction.

		<p>City, Saudi Arabia: A Cross Sectional Study</p>	<p>pharmacies.</p>	<p>2019.</p>	<p>pharmacies in Al-Madinah Al-Munawwarah City, Saudi Arabia, with a total of 1,000 randomly selected respondents. A structured questionnaire was used to complete the questionnaire independently, covering respondent characteristics, perceptions of the role of community pharmacists, and levels of satisfaction with pharmacy services. The data obtained were analyzed descriptively using statistical software to present the results in the form of percentages and frequency distributions.</p>	<p>Most respondents assessed that pharmacists are available at the pharmacy, are polite and respectful to patients, and have adequate knowledge in providing drug information. Approximately 62.5% of respondents expressed satisfaction with the role of pharmacists, and 64.8% were satisfied with pharmaceutical services overall. Public trust in pharmacists is also relatively high, particularly in providing medication instructions and therapy advice, although some respondents still prefer doctors as their primary source of drug consultation. Factors that most influence satisfaction include the availability and knowledge of pharmacists, speed of service, pharmacy location, and quality of</p>
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						counseling. These results indicate an opportunity for community pharmacists to continue expanding their role as patient-centered healthcare professionals. (El-Kholy et al., 2022)
3	Maja Andrzejewska et al. Year: 2022 Journal: International Journal of Environmental Research and Public Health	Public Perception of Pharmacists in Poland	The aim of this study was to evaluate public perception of pharmacists in Poland, as well as the knowledge and willingness of Polish people to use pharmaceutical services.	Place: The location of this research is Poland, with data collection conducted online through anonymous questionnaires distributed to the general public in various regions in Poland. Time: March-May 2017	This study is based on an anonymous online questionnaire distributed on social media. Statistical analysis was performed using Statistica v.10. Dependence between variables was tested using the Chi-square test, and the strength of association was measured using Cramer's V. The statistical significance level was set at $p < 0.05$ .	The study results show that Polish public perception of pharmacists is generally positive, although utilization of pharmaceutical services remains suboptimal. Sixty-one percent of respondents considered pharmacists a profession held in a position of public trust, while 25% stated that trust in pharmacists was lower than that of other healthcare professionals. The majority of respondents viewed pharmacists as friendly (74%) and helpful (69%), and 52% considered them fully competent in providing drug

						information, although some still preferred consulting with a doctor. Public awareness of pharmaceutical care was low, with only 44% of respondents aware of the concept. However, 66% of respondents expressed willingness to use pharmaceutical consultation services, especially if they were provided free or at a low cost. These findings suggest that while the image and trust of pharmacists are quite good, education and promotion of the role of pharmacists and pharmaceutical care services are still needed to increase public utilization. (Andrzejewska et al., 2022)
4	Abdelmoneim I. Awad et al. Year: 2017 Journal: Medical Principles and	Public Perceptions, Expectations, and Views of Community Pharmacy Practice in Kuwait	This study aims to determine patterns of community pharmacy use by the public, assess public perceptions of pharmacists, levels of trust and confidence in pharmacists, and	Place: Kuwait Year: January to May 2015	This study was a descriptive cross-sectional study. The subjects were adults selected using a two-stage stratified cluster	The study results indicate that the Kuwaiti public has a relatively negative perception of the role of community pharmacists, with moderate levels of

Practice			<p>public expectations regarding their role. Furthermore, this study aims to explore public views and levels of satisfaction with existing community pharmacy services, and identify future community needs for pharmaceutical services.</p>		<p>sampling design. Data were collected using a validated, self-administered structured questionnaire. The questionnaire covered respondent characteristics, community pharmacy utilization patterns, community perceptions of pharmacists, levels of trust, expectations regarding pharmacists' roles, and satisfaction with pharmacy services. The data were analyzed descriptively and inferentially using statistical software, including logistic regression analysis, with a significance level set at <math>p &lt; 0.05</math>.</p>	<p>trust and expectations. More than half of respondents (52.9%) stated that doctors are the first point of contact when facing medication-related issues, while 32.3% preferred pharmacists. Approximately 58.9% of respondents expressed trust in pharmacists, and 54.8% considered them capable of answering questions about medications or illnesses. However, 54.5% did not expect pharmacists to monitor patients' health progress. Views of current pharmacy services were slightly positive, with 59.6% of respondents expressing satisfaction with the services they received. However, most respondents expressed a willingness to accept expanded pharmacy services and would like to receive more information</p>
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						about the role of pharmacists, highlighting the need for increased public education and the development of community pharmacy practices in Kuwait. (Awad et al., 2017)
5	Hening Pratiwi et al. Year: 2020 Journal: Journal of Pharmaceutical Science and Clinical Research	Analysis of Public Perception of the Role of Pharmacists in Healthcare Services Pharmacy in the Sokaraja, Baturraden, Sumbang, and Dan Districts Kedungbanteng	This study aims to determine awareness (general awareness), perceptions, expectations, and experiences of the community regarding the role of pharmacists in providing pharmaceutical services at the Sokaraja District Pharmacy, Baturraden, Contribution, and Kedungbanteng.	Location: Pharmacies in Sokaraja, Baturraden, Sumbang, and Kedungbanteng Districts (Banyumas Regency) Time: Not explicitly stated (before 2020)	This research is a non-experimental research. using observational methods. The determination of pharmacies as research locations was carried out using a stratified sampling method. random sampling at 23 pharmacies and sampling of respondents by accidental sampling of 110 respondents. The research instrument was a questionnaire which was then scoring and descriptive univariate analysis were performed. Then categorization was	The results of the study indicate that public perception of the role of pharmacists in pharmacies in Sokaraja, Baturraden, Sumbang, and Kedungbanteng Districts is quite good. A total of 65.45% of respondents had good general awareness of the role of pharmacists, 63.64% had good perceptions, 59.09% had good expectations, and 50% had good experiences with the role of pharmacists in pharmaceutical services. These results indicate that the majority of the public has recognized and understood the role of

					carried out. based on the median value.	pharmacists as health workers, although there are still aspects that need to be improved, especially regarding the evaluation and monitoring of drug therapy and direct recognition of pharmacists by the public, for example through the use of practice attributes such as pharmacist jackets or name tags in pharmacies. (Pratiwi, Mustikaningtias, Fajri Rifki Widyartika, et al., 2020)
6	Omar A. Almohammed & Sary Alsanea	Public Perception and Attitude toward Community Pharmacists in Saudi Arabia	To determine the perceptions and attitudes of Saudi Arabian society towards community pharmacists and to assess the level of public satisfaction with the professional practices and services of pharmacists in community pharmacies.	The research was conducted in February-April 2019 in various regions of the Kingdom of Saudi Arabia (Saudi Arabia) through an online survey.	This was a cross-sectional study based on an online questionnaire. Respondents were adults (18 years and older). Convenience sampling was used via WhatsApp. Data were analyzed using the Chi-square test, Spearman correlation, and statistical analysis using SAS version	A total of 387 respondents participated. The majority of the public had a positive perception of community pharmacists (81.4%) and a positive attitude (69.8%). There was a strong positive correlation between perception and attitude ( $r = 0.71$ ; $p < 0.01$ ). Public satisfaction was high for pharmacist commitment and

					9.4.≥	communication, but low for pharmaceutical care services (clinical counseling, therapy monitoring, side effect education).(Almohammed & Alsanea, 2021)
7	Zulfan Zazuli, Aulia Putri Anjasmara, Lia Amalia	Perceptions, Expectations, Reality, and Public Confidence Regarding the Role of Pharmacists in Pharmacy Services in Bandung	To find out the public perceptions and expectations, the gap between expectations and reality, and the level of public trust in the role of pharmacists in pharmaceutical services in Bandung City, and to analyze the relationship between sociodemographic factors and public perceptions, expectations, and trust.	Time: March–April 2023. Location: Bandung City, West Java, Indonesia	Cross-sectional research using a validated questionnaire survey. Number of respondents: 440 people from Bandung City (aged ≥17 years). Sampling technique: non-probability sampling. Data analysis: descriptive and inferential (Chi-Square and Cramer's V).	58.41% of the public has a positive perception of the role of pharmacists. 56.82% have high expectations of pharmaceutical services. There is an average gap of 14.04% between expectations and the reality of services. 51.36% of respondents have a high level of trust in pharmacists. Influential sociodemographic factors: age and education level (perception), KTP domicile (expectation), and age, education, KTP domicile, and occupation (trust). (Zazuli et al., 2024)
8	Adris Ridwan Hidayat, Ida Jalilah Fitria	Analysis of Customer Perceptions Regarding the	To find out customer perceptions of the quality of health services at Rizqi Farma Pharmacy and to identify	Time: Year 2025 (published August 2025) Location: Rizqi Farma Pharmacy,	Qualitative approach with descriptive analysis. Data collection techniques:	Customers have a very positive perception of the quality of Rizqi Farma Pharmacy services. The

		Quality of Health Services at Rizqi Farma Pharmacy in Malakasari Village	factors that influence customer perceptions of the quality of these services.	Malakasari Village, West Java.	observation, interviews, and documentation studies. Informants: pharmacy owner, pharmacist, and 5 customers. Data analysis: data reduction, data presentation, and drawing conclusions (Miles & Huberman).	main factors that influence perception are: informative consultation services, friendly and communicative attitude of pharmacists, additional facilities (free blood pressure checks and weighing), complete availability of drugs, a clean and comfortable pharmacy environment, and transparent drug prices. The most dominant indicator of service quality is Tangible (physical evidence). (Hidayat & Fitria, nd)
9	Irmin; Prih Sarnianto; Yusi Anggriani; Jenny Pontoan	Perceptions of Patients with Minor Illness Complaints regarding the Role of Pharmacists Regarding Cost Efficiency and Treatment Access in the Era of National Health Insurance	To find out the perception of patients with minor illness complaints regarding the role of pharmacists in drug cost efficiency and ease of access to treatment in the National Health Insurance (JKN) era, and to provide input to BPJS regarding optimizing the role of pharmacists.	Time: June 2018 Location: 34 pharmacies collaborating with BPJS in the DKI Jakarta area	Observational method with descriptive analysis. Instrument: validated and reliable questionnaire. Sample: 99 BPJS participant patients with minor illness complaints (colds, fever, flu, headache) who self-medicated at the pharmacy.	There is potential for cost efficiency through the role of pharmacists from several aspects: • Management aspect: 88.9% effective • Clinical aspect: 76.8% effective • Self-medication aspect: 76.8% effective In addition, self-medication services by pharmacists provide easy access to treatment, such as lower

						costs, shorter service times, pharmacists are easy to find, and friendly and informative services. Pharmacist involvement has been proven to save costs and increase access to treatment for minor illness patients. (Sarnianto et al., 2020)
10	Rahmayati Rusnedy, Alda Innayah Maulidya, Annastasya Aprilia Shintia	Patient Satisfaction with Pharmacist Behavior in Providing Drug Information at Pharmacy X in Pekanbaru City	To determine the influence of pharmacist behavior in providing drug information (PIO) on the level of patient satisfaction at Pharmacy X in Pekanbaru City.	Time: September 2 – October 12, 2024 Location: Pharmacy X throughout Pekanbaru City, Riau Province	This observational/survey study was descriptive analytical with a cross-sectional design. Sample: 105 patients and 17 pharmacists. Sampling technique: saturated sample (pharmacists) and purposive sampling (patients). Data collection: patient satisfaction questionnaire. Data analysis: univariate analysis based on sociodemographic characteristics and types of drug services.	The highest patient satisfaction was found in the elderly age group (67%), women (60%), basic education (60%), and unemployed patients (88%). The frequency of patients who often/always received PIO was 58%. The type of drug service accompanied by PIO showed a satisfaction level of 55% (satisfied category). That there is an influence of the provision of drug information by pharmacists on patient satisfaction, but the quality and consistency of PIO still need to be improved to achieve optimal

						satisfaction. (Rusnedy et al., 2024)
11	CA Oparah and MA Iwuagwu	Public perception of community pharmacists in Benin City, Nigeria	To determine the public identity of community pharmacists as health service providers, evaluate public satisfaction with community pharmacies, and analyze the relationship between demographic factors (such as age, gender, and education level) and these perceptions.	Benin City, Edo State, Nigeria, circa 2000-2001 (published September 2001)	A 22-item Likert self-completion questionnaire was administered to 1,500 stratified random households in Benin City (68.3% response rate).	This study found that public perception of community pharmacists in Benin City, Nigeria, was overall moderately positive with a mean attitude score of $76.37 \pm 27.63$ on a 22-110 Likert scale, where 60% of respondents were above the neutral point of 66. Nearly two-thirds of respondents (64%) viewed pharmacists as healthcare providers, 70% agreed that pharmacists were needed especially in the selection of medicinal products (76%), and the pharmacy atmosphere was considered friendly. However, there were negative views, such as 52% of respondents believing pharmacists are more profit-oriented, only 43% willing to pay for pharmacist consultations, and 58% having difficulty distinguishing

						pharmacists from pharmacy assistants. Demographic analysis showed a significant influence of education level ( $P < 0.05$ ), with positive perceptions higher among secondary/tertiary respondents (61-62%) compared to primary respondents (44%), while age and gender did not have a significant effect. (CA OPARAH & MA IWUAGWU, nd)
12	Joyce Nadia Clarita Ndruru, Didiek Hardiyanto Soegiantoro, and Ellsya Angeline Rawar	Indonesian Public Perception of the Role of Community Pharmacists in Prescription Assessment and Medication Dispensing Based on Community Education Level	To determine the influence of the level of community education on the public's perception of the role of community pharmacists in prescription review and drug administration, which includes aspects of general awareness, effectiveness, collaborative, barriers, trustworthiness, and prescription review and administration based on the respondent's level of education.	The research time was not mentioned in detail, while the research location covered all of Indonesia because data collection was carried out online among the Indonesian people.	Quantitative descriptive research with a cross-sectional design, where data was collected online using a questionnaire and analyzed statistically.	The results showed that education level influenced public perception of the role of community pharmacists, particularly in terms of general awareness, collaboration, barriers, and trustworthiness. However, it had no significant effect on effectiveness and prescription assessment and medication administration. Furthermore, correlation

						tests showed a significant relationship between several dimensions of perception, with the highest correlation between effectiveness and prescription assessment and medication administration ( $r = 0.412$ ). (Nadia et al., 2025b)
13	Daisy Jindal, Himanshu Sharma, Shahid Karim, Prem Kapoor, Mohd Aqil, Syed Haris Omar, and KK Pillai	Public perception of community pharmacists in Delhi	Assessing public perception towards community pharmacists regarding professional services provided in community pharmacies in Delhi	The time of the study was not mentioned in detail, while the location of the study was conducted at a community pharmacy in South Delhi, India.	Descriptive research with a survey approach, using a questionnaire containing 13 questions administered through interviews to consumers at community pharmacies in South Delhi.	The study results showed that the majority of the public had a positive perception of community pharmacists, with pharmacies most frequently visited for medical reasons and convenient location being the primary factor in pharmacy selection. Approximately half of respondents received advice from pharmacists, and the majority rated the advice as helpful, felt comfortable asking questions, and perceived pharmacists as more concerned with patient health than business

						aspects, although the public still considered physicians the primary source of health advice. (Woodford et al., 2005)
14	Fajrin Noviyanto, Fajar Alam Haiti, Sofi Nurmay Stiani, and Masita Wulandari Suryoputri	Public Perception of the Role of Pharmacists in Pharmacies	To find out the public's perception of the role of pharmacists in pharmacies in providing pharmaceutical services to patients.	The time and location of the research were not mentioned in detail in the article, but the research was conducted in a pharmacy with subjects from the community/pharmacy visitors.	descriptive research with a survey approach, using a questionnaire to assess public perception of the role of pharmacists	The results of the study show that the majority of the public has a positive perception of the role of pharmacists in pharmacies, especially in providing drug information and pharmaceutical services, although there are still several aspects of the pharmacist's role that are not fully understood by the public. (Noviyanto et al., 2024)
15	Rizka Aryani	Patient Perceptions of the Role of Pharmacists in Pharmaceutical Services at Community Health Centers	Measuring patient perceptions (awareness, expectations, and trust) regarding the role of pharmacists in pharmaceutical services at community health centers in the West Semarang region.	Held in March–June 2021 at 7 Community Health Centers in the West Semarang area	Observational study with cross-sectional design, using questionnaires, involving 120 patients selected by consecutive sampling, and analyzed descriptively and using Spearman correlation test.	Patients have high levels of awareness, expectation, and trust in the role of pharmacists. There was a significant relationship between awareness–expectation ( $r = 0.277$ ), awareness–trust ( $r = 0.190$ ), and the strongest relationship was between expectation–trust

						(r = 0.696). (Ariyani, 2022)
16	Fajrin Noviyanto, Fajar Alam Haiti, Sofi Nurmay Stiani, Masita Wulandari Suryoputri	Analysis of the Influence of Sociodemographic Factors on Public Perception of the Role of Pharmacists in Pharmacies in Pandeglang Regency.	To determine the influence of sociodemographic factors on the level of public awareness, perception, and expectations regarding the role of pharmacists in pharmaceutical services.	In 2023, pharmacies in Pandeglang Regency, Banten.	Non-experimental observational research with a quantitative approach; random sampling and stratified random sampling techniques; 110 respondents; questionnaire instrument; data analysis using the Chi-square and Spearman rho tests.	A total of 86.4% of respondents had a favorable perception and 83.3% had high expectations of the role of pharmacists. Age and income were associated with public perception. (Noviyanto et al., 2024)
17	Nathanael Subadio et al.	Public Knowledge, Perceptions, and Expectations of the Pharmacy Profession During the Covid-19 Pandemic in Several Pharmacies in Sari District	To understand the public's knowledge, perceptions, and expectations of the pharmacist profession during the Covid-19 pandemic.	In 2021, several pharmacies in Sario District.	Qualitative descriptive research with in-depth interviews with 28 respondents.	The public is aware of the presence of pharmacists in pharmacies, but pharmaceutical services are still limited to prescriptions and drug information. The public hopes for more comprehensive pharmaceutical services, including telemedicine. (Yngwie et al., nd)
18	Hening Pratiwi, Ika Mustikaningtias, Fajri R.	Analysis of Public Perception of the Role of Pharmacists in	To determine the level of awareness, perception, expectations and experience of the community regarding the	In 2020, pharmacies in Sokaraja, Baturraden, Sumbang, and Kedungbanteng	Non-experimental research using observational methods; stratified random	As many as 65.45% of respondents had good awareness, 63.64% had good perception, 59.09%

	Widyartika, Didik Setiawan, Khafidz Nasrudin, Leony Julietta	Pharmaceutical Services at Pharmacies in Sokaraja, Baturraden, Sumbang, and Kedungbanteng Districts	role of pharmacists in pharmaceutical services.	Districts, Banyumas Regency.	sampling in 23 pharmacies; accidental sampling of 110 respondents; questionnaire instrument.	had good expectations, and 50% had good experience regarding the role of pharmacists. (Pratiwi, Mustikaningtias, Fajri Rifki Widyartika, et al., 2020)
19	Joyce Nadia Clarita Ndruru, Didiiek Hardiyanto Soegiantoro, Ellsya Angeline Rawar	Public Perception of the Role of Community Pharmacists in Prescription Assessment and Medication Dispensing Based on Community Education Level	Analyzing public perceptions of the role of community pharmacists in prescription assessment and drug administration.	2025, Indonesia.	Quantitative research using validated questionnaires; data analysis using Chi-square test and Spearman correlation.	Education level influences general awareness, collaboration, and public trust in pharmacists and there is a significant relationship between the dimensions of perception. (Nadia et al., 2025a)
20	Fortuna Narwadan, Didiiek Harditanto Soegiantoro, Ellsya Angeline Rawar	Indonesian Public Perception of the Role of Community Pharmacists in Drug Information Services (PIO) Based on Region	Analyzing the influence of residential area on the perception of Indonesian society regarding the role of community pharmacists in Drug Information Services (PIO), including aspects of awareness, effectiveness, collaboration, barriers, trust, and quality of PIO.	2025, Indonesia.	This study uses a quantitative method with a cross-sectional design conducted online throughout Indonesia in 2025. The sample consisted of 100 community respondents aged $\geq 18$ years selected using purposive and accidental sampling. Data were collected	The results showed that residential area did not significantly influence public perception of the role of community pharmacists in Drug Information Services ( $p > 0.05$ ). Public perception of pharmacists is evenly distributed throughout Indonesia. All perception variables were significantly correlated,

					through an online questionnaire and analyzed using validity tests (KMO, PCA), reliability tests (Cronbach's Alpha), Chi-Square tests to see the influence of region, and Spearman's Rank correlation for the relationship between perception variables.	with the strongest correlation between communication barriers and Drug Information Services ( $r = 0.768$ ), indicating the importance of pharmacists' communication skills in the success of PIO. (Narwadan et al., 2025)
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### III. DISCUSSION

In general, the reviewed research results indicate that public perception of the role of pharmacists in pharmacies tends to be quite good to positive, particularly in aspects of service most frequently experienced directly, such as providing drug information, explaining how to use it, and basic communication during medication dispensing. Findings in Indonesia confirm that general awareness and public perception of pharmacists' contribution to pharmaceutical services in pharmacies are quite good, although public experiences with pharmacist services more broadly have not always been consistent. (Pratiwi, Mustikaningtias, Fajri R Widyartika, et al., 2020)

Although perceptions tend to be positive, numerous studies show that public understanding still focuses on the "basic" role of pharmacists, namely prescribing and drug information services. More clinical services—such as comprehensive counseling, drug therapy monitoring, and side effect monitoring—are less recognized or not yet common experience. This is evident in studies that indicate that the public is aware of pharmacists, but their understanding of their services is still limited to prescribing and drug information services, while more comprehensive pharmaceutical care services remain poorly understood. (Nadia et al., nd)

On the trust dimension, several international studies show that the public may perceive pharmacists as competent, but when faced with health problems perceived as more complex, they still tend to rely on doctors as their primary reference. This situation indicates that pharmacists are often positioned as sources of drug information, while their role as clinical therapeutic partners is not yet fully established in public perception. (Awad & Jacinthe, 2017) Other findings from the European context also confirm that the image of pharmacists can be positive, but the utilization of more comprehensive services remains suboptimal because understanding of pharmaceutical care is not yet widespread. (Bara & Herda, 2022)

Perceptual barriers have also been identified in several studies, particularly those related to pharmacists' professional identity and the image of pharmacy services. In certain contexts, the public still has difficulty distinguishing pharmacists from other pharmaceutical professionals, and the perception that pharmacies are more transaction-oriented than health-care-oriented is emerging. This barrier is significant because it can undermine the strengthening of pharmacists' role as providers of pharmaceutical care, not simply as dispensers of medication. Several studies in Indonesia have shown that education level is associated with several dimensions of perception, such as general awareness, trust, collaboration, and barriers. This means that the better a person's health literacy, the more likely they are to understand pharmacists' broader contributions and view their role more positively. (Nadia et al., nd) This pattern is also in line with the study of public perception in pharmacies which confirms that good awareness and perception are not always followed by strong service experiences for all respondents, so public education is still

needed to broaden public understanding of the role of pharmacists. (Pratiwi, Mustikaningtias, Fajri R Widyartika, et al., 2020)

Overall, the literature shows that public perception of pharmacists in pharmacies is relatively good, but traditional roles are still dominant. (Bara & Herda, 2022) To strengthen public recognition of pharmacists' clinical role, more consistent counseling, greater visibility of pharmacists in the service area, and public education on the benefits of more comprehensive pharmaceutical services are needed. These efforts are crucial to ensure pharmacies are seen not simply as places to obtain medication, but as healthcare facilities that contribute to the safety and success of therapy. (Nadia et al., nd)

#### IV. CONCLUSION

This literature review shows that public perception of pharmacists in pharmacies tends to be positive, but is still dominated by traditional roles such as dispensing medication and providing basic information. Recognition and utilization of pharmacists' clinical services (comprehensive counseling, therapy monitoring, and medication problem prevention) are still limited and influenced by education level and experience with pharmacists. Therefore, consistent strengthening of counseling, increased visibility of pharmacists, and public education are needed to further recognize and utilize their clinical role.

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