Analysis of Hospital Image and Availability of Human Resources on The Utilization of Outpatient Services in Arjawinangun Regional Hospital Cirebon

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Abstract.

Outpatient services are the primary gateway for patients entering healthcare facilities, yet declining visits at regional hospitals in Indonesia indicate challenges in service utilization. This study aims to describe outpatient service utilization in relation to hospital image and human resource availability at Arjawinangun Regional Hospital, Cirebon. A quantitative descriptive study was conducted with 128 outpatients selected through simple random sampling. Data were collected using a structured questionnaire adapted from previous studies, consisting of 12 items for hospital image, 12 items for human resource availability, and 20 items for outpatient service utilization, all measured on a five-point Likert scale. Descriptive analysis was performed using IBM SPSS Statistics to calculate mean scores, which were interpreted using categories of very poor, poor, good, and very good. The results show that hospital image achieved an overall mean of 4.11 (very good), with functional image scoring highest (4.27) and institutional image lowest (3.98). Human resource availability achieved an overall mean of 4.06 (very good), with discipline and work ethic scoring highest (4.11) and waiting time concerns scoring lowest (3.88). Outpatient service utilization achieved an overall mean of 4.05 (very good), with service accessibility scoring highest (4.15) and visit frequency scoring lowest (3.96). The study concludes that while patient perceptions of hospital image and human resources are generally very positive, institutional transparency, waiting time management, and visit frequency require strategic attention. These findings provide empirical evidence for hospital management to strengthen institutional image and optimize staff distribution to enhance consistent outpatient service utilization.

Keywords: Hospital image; human resource availability; outpatient service utilization; regional hospital and descriptive study.

I.   INTRODUCTION

Outpatient services are the point of entry of patients into their healthcare institutions and are an essential health systems aspect in every health system across the world. Their growing use all over the world indicates that there is a paradigm shift towards curative to preventive and promotive healthcare. Opponent care will improve the access to basic health services, early detection of diseases, and decrease the hospital expenses (World Health Organization [WHO], 2023). Outpatient systems have become a part of developed countries as the basis of sustainable management of health by maximizing efficiency in terms of digitalization, waiting time, and patient comfort [1] The Minister of Health Regulation No. 3 of 2020 and the National Health Insurance (JKN) program, are some of the policies in Indonesia that have increased access to outpatient services in communities [2]. Nevertheless, efficiency remains a problematic issue with constant issues such as long waiting queues, scarce human resources, and ineffective administrative cohesion [3]. Such operational problems are complemented by extremely unstable public perception of hospital image which is highly affected by first hand experiences of patients and reviews. Sufficient human resources can underpin the image of the hospital, generating patient trust and guaranteeing the quality of services [4] Arjawinangun Regional Hospital is a Class B regional public hospital that is a major referral center of specialist care. The company has some alarming internal data: the number of outpatient visits has dropped to 42,904 in the first quarter of 2025 as compared to 47,263 at the end of the previous year, or by about 9.2 percent. This comes with a wide variation among clinics with the medical rehabilitation and internal medicine clinics being very busy with no visits to either psychology or nutrition clinic.

The local media outlets have characterized the hospital as being deserted or close to being closed down, which translates to a severe lack of trust among the population and questions the perceived professionalism and service delivery among the hospital.The recession of the use is caused by two interconnected issues tainted hospital image and human resource insufficiencies. The negative views of the society are a result of media, and personal experience of patients that includes feelings of dissatisfaction over

lengthy waiting queues, complex administrative systems, and unaddressive customer service during rush hours, as expressed in the online reviews. Moreover, the problem is exacerbated by the imbalance between the number of patients and the staff of the medical facility. Although the number of midwives rose by 90 to 155 between 2024 and 2025, visits to the obstetrics clinic did not follow this pattern, indicating possible inefficiencies in the human resource utilization. This implies that merely raising the number of staff is not good enough without trying to bridge the service standards against the community expectations [5]According to the previous research, these factors that affect outpatient utilization have been identified: facilities, costs, quality of communication, and waiting room comfort [6] [7]. The studies focus on the fact that positive hospital image leads to increased patient confidence, and repeat visits [1], as well as human resource availability is a critical factor in accessibility and the quality of the service [2].

Nevertheless, majority of the current research studies these factors separately. Existing studies have not combined the study of hospital image and human resource availability to examine the effects of the combination on outpatient utilization, especially in the framework of the downward trend of the Regional Hospital in an Indonesian public hospital. The particular case of Arjawinangun Regional Hospital, in which negative issues exist simultaneously, is a good chance to fill this research gap.Consequently, the paper seeks to examine how hospital image and the quality of human resources affecting the usage of outpatient services at Arjawinangun Regional Hospital, Cirebon. The proposed research aims to provide empirical evidence on these key variables in the hope that the hospital management can implement evidence-based findings to work on strategic plans to improve the services to match the public perception and community demands and, as a result, upturn the decreasing trend of patient visits in the hospital. Several factors further complicate the utilization trends ats RSUD Arjawinangun. The national health insurance system BPJS implements a tiered refrral system that regulates patients flow from primary care facilities to regional hospitals. Changes in BPJS referral policies and procedures may influence patient access to outpatient services at the hospital level, potentially affecting visit volumes and patterns. Additionally, public perception of the hospital is increasingly shaped by digital platforms such as Google Reviews, where patients share their experiences and evaluations.

II.   METHODS

This study employed a quantitative research design with a cross-sectional approach. The objective was to describe outpatient service utilization in relation to hospital image (X_1) and human resource availability (X_2) at Arjawinangun General Hospital, Cirebon. The population comprised all outpatients at Arjawinangun General Hospital during the 2024-2025 period, totaling 136,517 visits. The sample was selected using simple random sampling. The population size (136,517) and e is the margin of error (0.10). The calculation yielded n = 99.9 ≈ 100 respondents. To anticipate incomplete responses, the sample was increased to 112 respondents[8]. The research instrument was a structured questionnaire adapted from previous studies. Hospital image (12 items) was adapted [1] [4]. Human resource availability (12 items) [2] [6]. Outpatient service utilization (20 items)[9] [7]. All items used a five-point Likert scale (1 = strongly disagree to 5 = strongly agree).

Table 1. Blueprint of the Hospital Image Variable

Aspect	Indicators	Item Numbers	Total
Functional Image	Facilities and standards of medical services	1, 2	2
Emotional Image	Comfort and appreciation for patients	3, 4	2
Institutional Image	Reputation and professionalism of management	5, 6	2
Personal Image	Friendliness and responsiveness of health workers	7, 8	2
Social Image	Hospital's social contribution and concern	9, 10	2
Symbolic Image	Identity and symbol of public trust	11, 12	2
Total		1–12	12

Table 2. Blueprint of the Human Resource Availability Variable

Aspect	Indicators	Item Numbers	Total
Number & Availability	Adequacy of health workers and waiting time	1, 2	2

Quality & Competence	Technical skills and service quality	3, 4	2
Distribution & Placement	Equity and ease of service	5, 6	2
Workload & Productivity	Efficiency despite many patients	7, 8	2
Discipline & Work Ethic	Punctuality and work attitude	9, 10	2
Motivation & Satisfaction	Work spirit and its impact on service	11, 12	2
Total		1–12	12

Table 3. Blueprint of the Outpatient Service Utilization Variable

Aspect	Indicators	Item Numbers	Total
Visit Frequency	Level of service utilization	1, 2	2
Revisit Intention	Satisfaction leading to return visits	3, 4	2
Waiting Time	Efficiency of service process	5, 6	2
Service Accessibility	Ease of access to services	7, 8	2
Service Quality	Quality of health services	9, 10	2
Hospital Image	Influence of image on decision to use services	11, 12	2
Supporting Facilities	Outpatient support facilities	13, 14	2
Medical Personnel Availability	HR support for services	15, 16	2
Patient Satisfaction	Positive patient perceptions	17, 18	2
Administrative System	Orderliness and speed of administrative services	19, 20	2
Total		1–20	20

III. RESULT AND DISCUSSION

The hospital image variable consists of six indicators measured through 12 items. Data were collected from 128 respondents. Mean scores were interpreted using the following categories: 1.0–2.0 (very poor), 2.1–3.0 (poor), 3.1–4.0 (good), and 4.1–5.0 (very good).

Table 4. Descriptive Analysis of Hospital Image (X_1)

Indicator	Item	Statement	Mean Score	Indicator Mean	Category
Functional Image	1	The hospital provides complete and adequate medical facilities	4,48	**4,27**	Very Good
	2	Medical services comply with professional standards	4,05		
Emotional Image	3	Patients feel comfortable when receiving outpatient services	4,06	**4,09**	Very Good
	4	The hospital makes patients feel appreciated	4,12		
Institutional Image	5	The hospital has a good reputation in the public eye	3,99	**3.98**	Very Good
	6	Hospital management appears professional and transparent	3,97		
Personal Image	7	Medical personnel show a friendly and attentive attitude	4,08	**4,09**	Very Good
	8	Administrative personnel serve politely and responsively	4,10		
Social Image	9	The hospital actively contributes to the community	4,09	**4,08**	Very Good
	10	The hospital pays attention to patients' social interests	4,07		
Symbolic Image	11	The hospital reflects a modern and professional institution	4,20	**4,16**	Very Good
	12	The hospital is a symbol of public trust in health services	4,13		
Overall Mean				**4,11**	Very Good
Standard Deviation				**0,13**	

Table 4 shows the distribution of mean scores for each indicator of hospital image. The functional image indicator obtained a mean score of 4.27, with item 1 scoring 4.48 and item 2 scoring 4.05. The emotional image indicator achieved a mean of 4.09, with item 3 at 4.06 and item 4 at 4.12. The institutional

image indicator recorded a mean of 3.98, consisting of item 5 at 3.99 and item 6 at 3.97. The personal image indicator obtained a mean of 4.09, with item 7 at 4.08 and item 8 at 4.10. The social image indicator achieved a mean of 4.08, with item 9 at 4.09 and item 10 at 4.07. The symbolic image indicator recorded a mean of 4.16, with item 11 at 4.20 and item 12 at 4.13. The total score for hospital image was 6,316 with an overall mean of 4.11 and a standard deviation of 0.13, placing it in the very good category.

Table 5. Descriptive Analysis of Human Resource Availability (X_2)

Indicator	Item	Statement	Mean Score	Indicator Mean	Category
Number & Availability	1	The number of health workers meets outpatient service needs	4,20	**4,04**	Very Good
	2	Health workers are adequate so patients do not wait long	**3,88**		
Quality & Competence	3	Health workers have good competence according to standards	4,02	**4,03**	Very Good
	4	Service quality meets outpatient expectations	4,04		
Distribution & Placement	5	Health workers are evenly placed in each outpatient unit	3,99	**4,04**	Very Good
	6	Distribution facilitates quick service access	**4,08**		
Workload & Productivity	7	Workers complete tasks productively despite high patient volume	4,15	**4,07**	Very Good
	8	Workload does not reduce outpatient service quality	**3,98**		
Discipline & Work Ethic	9	Workers adhere to service schedules and procedures	4,02	**4,11**	Very Good
	10	Work ethic positively impacts patient comfort	4,20		
Motivation & Satisfaction	11	Workers show high motivation in providing services	4,14	**4,08**	Very Good
	12	Job satisfaction affects service quality	4,02		
Overall Mean				**4,06**	Very Good
Standard Deviation				**0,10**	

Table 5 presents the mean scores for human resource availability. The number and availability indicator obtained a mean of 4.04, with item 1 scoring 4.20 and item 2 scoring 3.88. The quality and competence indicator achieved a mean of 4.03, with item 3 at 4.02 and item 4 at 4.04. The distribution and placement indicator recorded a mean of 4.04, consisting of item 5 at 3.99 and item 6 at 4.08. The workload and productivity indicator obtained a mean of 4.07, with item 7 at 4.15 and item 8 at 3.98. The discipline and work ethic indicator achieved a mean of 4.11, with item 9 at 4.02 and item 10 at 4.20. The motivation and satisfaction indicator recorded a mean of 4.08, with item 11 at 4.14 and item 12 at 4.02. The total score for human resource availability was 6,236 with an overall mean of 4.06 and a standard deviation of 0.10, placing it in the very good category.

Table 6. Descriptive Analysis of Outpatient Service Utilization (Y)

Indicator	Item	Statement	Mean Score	Indicator Mean	Category
Visit Frequency	1	The number of outpatient visits is high and routine daily	**4,02**	3,96	Good
	2	Outpatient visits have increased in recent months	3,91		
Revisit Intention	3	Patients tend to return due to satisfaction with services	3,95	3,97	Good
	4	Patients choose to return because services are consistent	3,99		
Waiting Time	5	Waiting time for outpatient services is relatively short	4,07	4,05	Very Good
	6	Queuing process runs on schedule without significant delays	4,03		
Service Accessibility	7	Outpatient services are easily accessible to patients	4,17	4,15	Very Good
	8	Available services cover most patient needs	4,13		
Service Quality	9	Health services meet good quality standards	4,12	4,11	Very Good
	10	Health workers provide professional services according to procedures	4,10		
Hospital Image	11	Hospital image influences patients' decision to use services	4,07	4,00	Very Good
	12	Hospital reputation is considered good by the community	3,92		
Supporting Facilities	13	Facilities and infrastructure adequately support patient comfort	4,09	4,06	Very Good
	14	Waiting rooms provide adequate facilities	4,04		
Medical Personnel Availability	15	Medical staff are always available and ready to provide services	4,13	4,09	Very Good
	16	Number of medical staff is sufficient for daily patient needs	4,05		
Patient	17	Patients are satisfied with the services received	4,11	**4,06**	Very Good

Satisfaction	18	Patients feel protected and comfortable during services	4,01		
Administrative System	19	Administrative and registration system is orderly, fast, and easy	4,12	**4,07**	Very Good
	20	Administrative processes are quick and uncomplicated	4,03		
Overall Mean				**4,05**	
Standard Deviation				**0,07**	

Table 6 presents the distribution of mean scores for each indicator of outpatient service utilization. The visit frequency indicator obtained a mean of 3.96, with item 1 scoring 4.02 and item 2 scoring 3.91. The revisit intention indicator achieved a mean of 3.97, with item 3 at 3.95 and item 4 at 3.99. The waiting time indicator recorded a mean of 4.05, with item 5 at 4.07 and item 6 at 4.03. The service accessibility indicator obtained a mean of 4.15, with item 7 at 4.17 and item 8 at 4.13. The service quality indicator achieved a mean of 4.11, with item 9 at 4.12 and item 10 at 4.10. The hospital image indicator recorded a mean of 4.00, with item 11 at 4.07 and item 12 at 3.92. The supporting facilities indicator obtained a mean of 4.06, with item 13 at 4.09 and item 14 at 4.04. The medical personnel availability indicator achieved a mean of 4.09, with item 15 at 4.13 and item 16 at 4.05. The patient satisfaction indicator recorded a mean of 4.06, with item 17 at 4.11 and item 18 at 4.01. The administrative system indicator obtained a mean of 4.07, with item 19 at 4.12 and item 20 at 4.03. The total score for outpatient service utilization was 10,373 with an overall mean of 4.05 and a standard deviation of 0.07, placing it in the very good category.

Hospital Image

The descriptive analysis shows that the hospital image variable achieved an overall mean of 4.11, placing it in the very good category. Among the six indicators, functional image scored the highest (4.27), particularly on the availability of complete and adequate medical facilities (4.48), while institutional image scored the lowest (3.98) on aspects of reputation and management transparency. This finding indicates that patients highly value the physical infrastructure and medical facilities, but perceptions of management professionalism and transparency require further strengthening. The positive perception of functional and personal aspects (4.09) suggests that the hospital has succeeded in building trust through tangible service quality and staff interactions [10] This finding aligns with the theoretical framework that hospital image is a multidimensional construct encompassing functional, emotional, and symbolic aspects [1]. The relatively lower score on institutional image is consistent which found that institutional aspects often require more attention as they relate to public perception of management professionalism. Therefore, hospital management needs to enhance information disclosure and strengthen communication with the wider community to improve institutional perception, while maintaining the already positive functional and personal aspects of service delivery [11]

Human Resource Availibility at Arjawinangun General Hospital

The descriptive analysis shows that the human resource availability variable achieved an overall mean of 4.06, placing it in the very good category. Among the six indicators, discipline and work ethic scored the highest (4.11), particularly on the positive impact of work ethic on patient comfort (4.20), while the availability of personnel to prevent long waiting times scored the lowest (3.88). This finding indicates that patients highly value the professional behavior and work ethic of health workers, but concerns about waiting times and workload (3.98) suggest operational efficiency needs improvement despite the positive work culture [12] These findings are consistent with the theoretical framework that human resource availability is a key factor in healthcare service quality [2].

The high scores on discipline and motivation align with research by Ekawati et al which found that the availability of health workers significantly influences patient perceptions of service quality. However, the lower scores on waiting time suggest that the hospital should conduct regular evaluations of the ratio between staff numbers and increasing patient volume, ensuring that the positive work culture translates into faster service delivery and reduced patient waiting times [6]. Furthermore, the BPJS tiered referral system plays a significant role in regulating patient access to hospital services, as changes in referral policies and procedures can directly impact outpatient visit volumes, making it essential for hospital management to maintain effective communication with primary care providers and conduct ongoing patient education regarding referral regulations.

Outpatient Service Utilization at Arjawinangun General Hospital

The descriptive analysis shows that the outpatient service utilization variable achieved an overall mean of 4.05, placing it in the very good category. Among the ten indicators, service accessibility scored the highest (4.15), particularly on ease of access to outpatient services (4.17), while visit frequency (3.96) and revisit intention (3.97) scored in the good category. This finding indicates that patients find it easy to access services and perceive service quality positively (4.11), but there may be challenges in sustaining or increasing visit frequency and in strengthening hospital reputation to encourage more visits.These findings can be understood through the lens of healthcare utilization theory, which posits that service utilization is influenced by predisposing factors, enabling factors, and need factors [9]. The high scores on service accessibility and quality suggest that enabling factors are well-established at the hospital.[7]. However, the moderate scores on visit frequency and revisit intention indicate that predisposing factors, such as patient perceptions and attitudes, require further attention through strategies such as patient follow-up programs and continuous quality improvement based on patient feedback.The descriptive findings have several important implications for Arjawinangun General Hospital management. The very good perception of hospital image across most indicators suggests successful reputation building, but the lower score on institutional image indicates a need for enhanced transparency and public communication regarding management practices.

Similarly, the very good perception of human resource availability reflects positively on HR management, but lower scores on waiting time and workload suggest operational efficiency could be improved through better workload distribution and possibly additional staffing in high-demand units.These implications are consistent with the integrated approach to healthcare service management, which emphasizes the interconnectedness of hospital image, human resource quality, and service utilization [4]. Improvements in one area are likely to positively influence the others, creating a virtuous cycle of increasing patient satisfaction and utilization. The finding also highlight the importance of external contextual factors in shaping service utilization. The BPJS referral system serves as a gatekeeping mechanism that regulates patient access to hospital-level care, making it essential for hospital management to maintain effective communication with primary care providers and conduct patient education regarding referral procedures. Simultaneously, the hospital's online reputation on platforms like Google Reviews has become a powerful force in shaping public perception and attracting new patients. Positive reviews reinforce the hospital's image, while negative feedback can undermine years of quality improvement efforts. Therefore, an integrated strategy that addresses internal operational factors (staff distribution, waiting time management), external regulatory factors (BPJS referral system socialization), and digital reputation management (active monitoring and response to online reviews) is necessary to ensure consistent and growing outpatient service utilization at Arjawinangun Regional Hospital.

IV.   CONCLUSION

The research of outpatient service usage at Arjawinangun General Hospital shows that the patient rating of the hospital image and human resource presence is usually very high. Hospital image is strongly viewed in functional, and personal image, and institutional image regarding transparency of management and reputation of the hospital still needs strengthening. The fact that human resource is appreciated in terms of discipline and work ethic is mixed with issues of waiting times and the allocation of workload meaning that it has areas of operation that require enhancement. The usage of outpatient services itself has high scores in terms of accessibility and service quality, whereas the frequency of visits and intention to revisit are moderate, which points to the fact that the positive perception does not necessarily lead to the further utilization. The first research gives the hospital management empirical evidence based on the particular features of image and human resources that influence patient experiences. To improve the relationship between positive perceptions and regular service attendance, it is suggested to provide efforts in improving institutional transparency, ensuring a proper staff allocation to create a shorter waiting time, as well as patient engagement strategies. Future researchers can examine the longitudinal tendencies of these variables, as well as their association with patient loyalty and competitiveness of hospitals.

V. ACKNOWLEDGMENTS

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