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Advancing Public Hospital Responsiveness and Satisfaction among Patients in Cambodia: A Focus on Healthcare Services

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Abstract

The aims of this study were to investigate the level of public hospital responsiveness, the level of patient satisfaction after using healthcare services in public hospitals and to examine the relationship between the two variables. This study used a quantitative correlational design, and data were collected through a questionnaire. The participants were 220 patients attending public hospitals in Cambodia. The data analysis was performed using statistical package for the social sciences version 25, and descriptive and inferential statistical methods were used to answer the research questions. The results showed high hospital responsiveness and patient satisfaction with 4.15 and 4.36 means respectively. There was a moderate and significant correlation between hospital responsiveness and patient satisfaction ($r=0.34$, $p<0.01$). The results indicated that the improvement of hospital responsiveness can enhance patient satisfaction. Additionally, public hospitals need to improve the responsiveness to get patient satisfaction which is the core element of the patient-centered service delivery. The study is original in providing empirical evidence on the relationship between hospital responsiveness and patient satisfaction in Cambodian public hospitals, an area that has been subject to limited systematic investigation. Responsiveness and patient satisfaction have been well-studied in other countries but there are few quantitative, data-driven studies of public hospitals in Cambodia, especially from the perspective of the patients.

Keywords: Cambodia, health system responsiveness, patient satisfaction, public hospitals, universal health coverage

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1. Introduction

The win-win strategy has allowed Cambodia to attain total peace while preserving its territorial integrity, national unity, political stability, and socioeconomic growth (Lim et al., 2025). Numerous accomplishments have been achieved in a short amount of time, and the execution of comprehensive reform programs has improved the lives of people from all walks. Before the COVID-19 pandemic, Cambodia achieved an average annual economic growth rate of about seven percent (7%) thanks to the implementation of important national policies, such as the triangle strategy, the rectangular strategy, the national strategic development plans, and the Cambodia industrial development policy, all of which were carried out in total peace over the previous 20 years. In this context, Cambodia was rated as a new economic tiger in Asia in 2016 after being promoted from a low-income to a lower-middle-income country in 2015 (Royal Government of Cambodia, 2022).

Prioritization of quality healthcare improvement as part of the pathway to achieve universal health coverage by 2035 and sustainable development goal 3 (SDG 3) which aims to ensure healthy lives and promote well-being, to meet patients' expectations. Better healthcare with emotional support is having quality healthcare features including good communication, responsiveness and respect for patients' rights. In this perspective, health system responsiveness is an important component in attaining the SDG 3 as it has a substantial effect on patient satisfaction and health outcomes. Good communication, respect and emotional support can be emphasized to improve patients' experiences, which in turn leads to greater treatment adherence and improved overall health outcomes (Kim et al., 2024; Thay et al., 2026). Moreover, aligning healthcare practice with SDG 3 addresses the immediate needs of patients and simultaneously bolsters the overall health system by guaranteeing equitable access to essential services and fostering community health.

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Hospitals play a crucial role in social and health organizations by offering comprehensive services, treating patients (curative), and preventing illnesses (preventive) in the community (Wendimagegn & Bezuidenhout, 2019).

The World Health Organization (WHO) introduced responsiveness as a core non-clinical quality dimension of the health system, describing how well services meet legitimate patient expectations or patient satisfaction. The framework of responsiveness of the health system by WHO is classified into two groups (1) respect of person containing three dimensions: dignity, autonomy, and confidentiality, and (2) client orientation containing four dimensions: prompt attention, quality of basic amenities, choice of care worker, and access to social support (de Silva & Valentine, 2000; Murray & Frenk, 2000).

According to the WHO, patient satisfaction is understood as a patient's assessment of the extent to which their expectations of healthcare are met during interactions with the health system, particularly in relation to non-clinical and experiential aspects of care. Patient satisfaction reflects how patients are treated by healthcare workers, how well the system responds to patients' needs and expectations and patients' perceptions of service quality, not just clinical outcomes (Larson et al., 2019).

Table 1. Dimensions of Health System Responsiveness and Their Descriptions

Dimensions of Responsiveness	Description
Respect for Person	
1. Dignity	The treatment of patients in a respectable manner when they come in contact with the health system, and whether the human rights of patients especially concerning diseases such as AIDS or leprosy, are safeguarded in the health system.
2. Autonomy	The patient's right to refuse treatment or opt for alternative treatment.
3. Confidentiality	Maintaining the secrecy of the communication between the doctor and the patient, and safeguarding medical records.
Client orientation	
4. Prompt Attention	The accessible location of health facilities and minimal waiting times.
5. Quality of basic amenities	The quality of non-clinical aspects of the health system, such as cleanliness of the facility, adequate furniture, and quality of meals.
6. Choice of Care Worker	Choice of health facility, choice of worker, and opportunity to seek a second opinion.
7. Access to Social Support	The integration of community interactions with healthcare activities is an effort to improve patient well-being.

Source: Adapted from de Silva and Valentine (2000, p. 19).

1.1. Research Problems

Health improvements over the last century have been impressive, but health systems have reached a crucial turning point. Despite increasing health expenditures and unprecedented advances in modern medicine, people today are not necessarily healthier in mind and body. Neither are they more content with the healthcare they receive. Access, patients' safety and quality, responsiveness, and especially satisfaction with healthcare are important and pressing global issues (World Health Organization, 2009).

In response to these global challenges, achieving SDG 3 by 2030, which focuses on ensuring healthy lives and the promotion of well-being for all at all ages, the above focus underlines the importance of high-quality healthcare services because of their significant impact on patient satisfaction. Thus, effective communication, respect, and emotional support can improve patient experiences, which in turn can improve patient compliance and health outcomes. Besides, aligning healthcare practices with the above SDG 3 not only meets the healthcare demands of individual patients but also strengthens the healthcare system as a whole in ensuring access to basic healthcare services for the entire community (Luxford et al., 2011).

In the Cambodian context, ensuring healthy lives and well-being for all Cambodian people depends on the ability of the health system to prepare for and effectively respond to anticipated potential negative health impacts that may occur on the individual, family, community, and population at large. The most important factor, therefore, is to avoid substantial ill-health among the population. This potential health challenge can be managed through comprehensive planning for a strong health system performance with a focus on delivering health education and promotion, primary and secondary prevention, and effectively managing acute events, alongside the enhancement of effective multi-sectoral

and multi-disciplinary response to address social, economic, and environmental determinants of health. In this context, a well-functioning health system is essential throughout the journey towards achieving the objective of Cambodia's universal health coverage by 2035. In line with Cambodia's roadmap to universal health coverage in 2035 and to achieve SDG 3 with aims to ensure healthy lives and the promotion of well-being, improving quality healthcare has been seen as a priority to meet patient satisfaction (Ministry of Health, 2025).

The health system in Cambodia is a contextually unique setting that calls for targeted empirical research. Cambodia uses a post-conflict recovery paradigm, in contrast to high-income nations where responsiveness has been investigated within well-resourced health systems. After being mostly devastated during the Khmer Rouge era, the healthcare infrastructure has since been restored, mostly because to government reform programs and outside assistance (World Health Organization, 2009). The National Social Security Fund (NSSF), the Health Equity Fund (HEF), and Out-of-Pocket (OOP) payments all operate concurrently, creating a stratified patient population whose expectations of hospital responsiveness may be very different from those of single-payer or universal coverage systems (Ministry of Health, 2025). A crucial moment for evaluating responsiveness has also been brought about by Cambodia's quick economic transformation from a low-income to a lower-middle-income nation in 2015. The importance and theoretical relevance of empirical research in this setting are highlighted by the structural and socioeconomic considerations that suggest the dynamics of hospital responsiveness in Cambodia are unlikely to match those observed in other developing or industrialized nations.

1.2. Research Objectives

The purpose of this study is threefold:

a. To investigate the level of practices of responsiveness in public hospitals.
b. To investigate the level of satisfaction of patients after using healthcare services in public hospitals.
c. To examine the relationship between hospital responsiveness and patient satisfaction in the public hospitals.

1.3. Research Questions

To meet the above objectives, this study answers the following three research questions.

a. What is the level of practice of responsiveness in public hospital?
b. What is the level of satisfaction of patients after using healthcare services in public hospital?
c. Is there a relationship between hospital responsiveness and patient satisfaction in a public hospital?

2. Literature Review

Patients assess the quality of healthcare services based on interpersonal and environmental aspects, which are often considered less significant by medical professionals. Additionally, many patients struggle to distinguish between the caring (functional) and curing (technical) aspects of healthcare provided by medical professionals (Ibrahim & Ahmed, 2019). Compared to other sectors offering consumer services, healthcare services possess distinctive characteristics, including intricate service levels, production processes, and intangible aspects. Financial considerations and the inadequate quality of human resources have the potential to give rise to numerous complaints (Mitropoulos, 2018). Patient satisfaction has become a crucial measure for assessing the effectiveness of healthcare service providers over the last ten years (Vogus & McClelland, 2016). Patient satisfaction encompasses the quality of service delivered by the healthcare system, thereby shaping their subjective views of the hospitals where they receive care (Windi et al., 2022).

Patient satisfaction levels significantly impact healthcare systems, affecting the utilization of medical devices, prognosis, litigations, and malpractice suits (Batbaatar, 2017). The evaluation of service by patients is a crucial metric used to assess how well a healthcare facility is performing. Most of the time, the patients' perspectives influence their degree of satisfaction since their expectations about how the services should be provided shape their own opinions (Mohammadi & Kamali, 2014).

Consequently, patient satisfaction is currently the paramount criterion for evaluating healthcare delivery system performance. Patient satisfaction also plays a crucial role in engaging patients in their own healthcare plans. Different measurement tools around the globe prioritize diverse facets of the healthcare encounter, encompassing interactions with medical professionals, ease of access to hospitals, standard of essential medical equipment, and waiting durations (Zhang et al., 2020). For example, a cross-sectional study by Dosen et al. (2020) on the quality of services provided by

public hospitals in Croatia, based on the gaps model and SERVQUAL, was done with 564 patients in 18 departments of the university hospital center. Four out of five dimensions were negative, which means expectation exceeded perception; empathy had a positive gap score. The smallest gap was in the assurance dimension, the key areas of dissatisfaction were responsiveness (waiting time and patient information), and tangibles (physical appearance of the hospital and infrastructure). Furthermore, a study conducted by Hussain et al. (2019) on factors affecting patient satisfaction in public sector hospitals with 445 participants. The findings indicated that the hospital management team needed to focus on a timely delivery of services, proper communication, and the employment of staff who willingly care for patients.

Similarly, a study was conducted by Park et al. (2025) to identify the key factors influencing patient satisfaction between 2019 and 2023 at the Korean Medical Service with a total of 69,562 participants. The findings revealed that treatment outcomes were the most significant predictor, followed by the convenience of the medical facility.

In addition, a cross-sectional study by Kurti and Kalaja (2024) with the purpose to assess the level of patient satisfaction with primary healthcare services and to determine the factors that influence it, revealed that management should pay special attention to the appearance of physical facilities, equipment, medical staff knowledge and courtesy, as well as their ability to convey trust and confidence and reduction of waiting duration to improve patient satisfaction.

Moreover, a study by Pouragha and Zarei (2016) was conducted to establish the effect of service quality on patients' satisfaction. The authors sampled 500 participants who were selected with a systematic random method from the outpatient departments. The findings indicate that the majority of patients had a positive experience after using healthcare services. The factors that affected satisfaction were doctor consultation, physical environment, and patient information.

Because baseline patient expectations are greatly influenced by cultural norms, past healthcare experiences, and the structural characteristics of the health system, it is crucial to emphasize that patient satisfaction scores are not always similar between studies. Patients may have higher expectations in nations with well-established health systems, which could result in more critical assessments even when objective treatment quality is sufficient (Batbaatar, 2017). On the other hand, patients may express greater satisfaction in comparison to their lower baseline expectations in developing nations, such as Cambodia, where access to formal healthcare services was historically restricted. This phenomenon is known as the "threshold effect" in satisfaction measurement (Larson et al., 2019). When interpreting the results of this study in light of global evidence, this methodological aspect must be taken into mind. Studies that indicated low responsiveness, such Dosen et al. (2020) and Ozretic (2020) in Croatia, were carried out in middle- to high-income European settings where patients have far higher expectations for service quality. Therefore, a "high" satisfaction score in Cambodia does not always correspond to the same absolute level of service quality as a "high" score in a European setting, and this divergence should guide the theoretical placement of the current findings.

3. Methods

This part outlines the manner in which the study was conducted to determine the responsiveness of public hospitals in Cambodia and the satisfaction of the patients. It includes the research design, sample size, instrument and data collection procedure, data analysis procedure, and the ethical considerations.

3.1. Research Design

According to Bryman and Bell (2011), a research design provides overall guidance and a framework for the data collection and analysis of the study. It is critical in terms of linking the theory and the empirical data collected in order to answer the research questions. A choice of an appropriate research design influences the use and type of data collection, sampling techniques, and the budget. Additionally, when designing a study, the researcher should make a series of rational decisions regarding the purpose of the study, location of the study, the investigation type, role of the researcher, time horizon, and the level of data analysis (Bryman & Bell, 2011; Mann, 2013)

Based on these considerations, the design for the current study is quantitative, employing a correlational design. According to Olsen (2004), the underlying philosophical worldview of quantitative research design is positivism. The positivist approach to research assumes the use of objective, scientific methods to gain knowledge. The scientific method requires the use of measurement and an empirical or scientific basis for carrying out research on populations and samples. The scientific method involves the formulation of hypotheses and the collection of observable and quantifiable data. In addition, hypotheses are tested following mathematical procedures and statistical analyses.

Additionally, according to Bryman (2008), quantitative research methods seek to collect numerical data and verify the relationships between measurable variables in a universal cause-and-effect way. Furthermore, quantitative methods use a deductive approach that is associated with hypothesis testing in order to modify or support the existing theory, according to David and Sutton (2004). Accordingly, these are linked mainly with positivist epistemology, which uses scientific procedures and involves statistical methods and usually presents data numerically (Bryman, 2008; David & Sutton, 2004).

3.2. Research Samples

According to Zikmund et al. (2009), the target population represents the entire cohort relevant to the study from which the conclusions are to be drawn. The determination of the target population requires consideration of the inclusion and exclusion criteria, the effect size, and the feasibility of the study to ensure the selected participants are representative of the phenomenon under study. In this study, the target population consisted of patients accessing healthcare services in public hospitals in Cambodia.

In addition, determining an adequate sample size is essential to ensure the reliability and validity of quantitative data analysis. Bryman (2008) argued that the determination of the sample size should be related to the type of data analysis used in the study because it can enhance the accuracy and credibility of the findings. In this study, a total of 220 patients were recruited from 11 public hospitals, with 20 patients selected from each hospital to ensure institutional representation across the study sites. The sample size was considered adequate for correlation analysis because it exceeded the minimum sample required to detect a medium correlation effect. Based on a two-tailed significance level of 0.05, statistical power of 0.80, and an expected medium effect size for Pearson correlation, the sample of 220 participants was sufficient to examine the relationship between hospital responsiveness and patient satisfaction.

Convenience sampling was used because the researchers did not have full access to a complete sampling frame of all patients attending public hospitals. This sampling technique was considered appropriate due to practical constraints in accessing patients in hospital settings, as convenience sampling allows researchers to collect data from participants who are available and willing to participate in the study (Creswell & Creswell, 2018; Punch & Punch, 2005). Participants were selected based on their availability, willingness to participate, and fulfilment of the study criteria during the data collection period. To reduce potential selection bias, the researchers collected data from 11 public hospitals and recruited the same number of participants from each hospital. Nevertheless, the use of convenience sampling limits the external validity of the findings. Therefore, the results should be interpreted as reflecting the perceptions of the participating patients rather than representing all public hospital patients in Cambodia.

Furthermore, it was important to ensure an adequate response rate in order to improve confidence in the results and reduce the possibility of non-response bias. Non-response bias can occur when some selected participants do not respond to several questions or do not complete the questionnaire at all. High non-response levels may affect the validity of the findings and reduce the accuracy of the conclusions drawn from the data (Saunders et al., 2009). Therefore, the researchers attempted to ensure that the collected questionnaires were complete and suitable for data analysis.

3.3. Research Instruments and Data Collection Procedures

A questionnaire was developed to collect the data required to answer the research questions and thus achieve the main objectives of the study. The questionnaire items were mainly obtained from reviewing the related literature. This study followed Sekaran and Bougie (2011) and Ghauri and Gronhaug (2005) procedures to develop a questionnaire which is based on conceptualization and operationalization of the constructs.

Moreover, the instrument used in this study is a questionnaire that was adapted from earlier research. The questionnaire comprises demographic data, perception of dignity, autonomy, confidentiality, prompt attention, quality of basic amenities, choice of care worker, and access to social support. It uses a 5-point Likert scale to measure the level of patients' perception.

To ensure the appropriateness of the adapted questionnaire for the Cambodian public hospital context, the instrument was reviewed by experts in healthcare service quality and research methodology. The review focused on the clarity, relevance, and consistency of the items with the dimensions of hospital responsiveness and patient satisfaction. In addition, a reliability test was conducted using Cronbach's alpha to assess the internal consistency of the questionnaire.

The results indicated that the adapted questionnaire had acceptable internal consistency and was suitable for measuring patients' perceptions in this study.

To interpret the results, specific criteria were used to analyze the level of responsiveness and level of satisfaction: range between 1.00 and 1.50, which is interpreted as extremely low; range between 1.51-2.50, which is interpreted as low; range between 2.51-3.50, which is interpreted as moderate; range between 3.51-4.50, which is interpreted as high; range between 4.51-5.00, which is interpreted as extremely high (Norman, 2010). Similarly, correlation criteria were used to analyze the relationship between the two variables: a range of 0.10-0.29 is interpreted as low; 0.30-0.49 as moderate; and 0.50-1.0 as high (Aberson, 2019).

Furthermore, to explore the level of responsiveness and the level of patient satisfaction, descriptive analysis was employed. To examine the relationship between hospital responsiveness and patient satisfaction, inferential analysis was used. Before proceeding to the data collection process, the sampling technique is considered a critical concern to the research in order to represent the targeted population and to eliminate bias in the data collection methods and thus generalize the findings (Light et al., 1990; Kashkoli et al., 2017). According to Fowler (2014), there are four critical issues to be considered when designing the sample as follows: (1) the choice of probability or non-probability sample technique; (2) the sample frame; (3) the size of the sample and (4) the response rate.

Particularly, it is common for research to recognize the importance of collecting information from samples due to time and financial constraints. According to Krathwohl (2004), when designing a sample, researchers should consider the nature of the research problem, research questions, objectives, time, and budget. Sampling techniques are generally categorized into probability and non-probability approaches. Probability sampling is based on random selection, where each member of the population has a known chance of being selected. Probability sampling techniques include simple random, stratified, systematic, and cluster sampling (Groves et al., 2009; Blumberg et al., 2008). However, considering the practical constraints in accessing hospital patients, this study employed a quota-based convenience sampling approach. The researchers selected 20 patients from each of the 11 public hospitals, resulting in a total sample of 220 respondents. This approach allowed the study to include participants from multiple hospital settings, although the selection of individual patients depended on their availability and willingness to participate. Therefore, the sampling approach should be understood as a practical strategy to obtain data across hospital sites, rather than as a fully random sampling procedure.

3.4. Data Analysis Procedures

Data analysis was done using data analysis techniques such as descriptive and inferential statistics to identify trends and patterns in the data. The statistical package for the social sciences version 25 data analysis tool was used. Descriptive analysis techniques involved the application of frequency, percentage, means, and standard deviations in the evaluation of the surveyed variables. The correlation method was applied in the evaluation of the surveyed variables using the Pearson product-moment correlation coefficient.

Furthermore, inferential statistical analysis was conducted to examine the relationship between hospital responsiveness and patient satisfaction. In particular, the Pearson product-moment correlation coefficient was applied to assess the strength and direction of the relationship between the variables. Before conducting the Pearson product-moment correlation analysis, the assumptions of normality, linearity, and homoscedasticity were considered to ensure the appropriateness of the statistical test. Normality was examined to determine whether the data distribution was suitable for parametric analysis, while linearity and homoscedasticity were assessed to ensure that the relationship between hospital responsiveness and patient satisfaction could be appropriately analyzed using Pearson correlation. These assumption checks were necessary because Pearson correlation requires continuous variables and an approximately linear relationship between the variables. This method is suitable for estimating the degree of association between two continuous variables and for testing statistical significance.

The method enabled the measurement and interpretation of the degree of the relationship, which is consistent with the quantitative correlational research design, between the two variables. As a result, the use of descriptive and inferential statistical methods helped in the thorough analysis of the data in an accurate and systematic manner in relation to the research questions under consideration.

3.5. Ethical Considerations

All the ethical considerations were strictly adhered to during the entire period of the study. The respondents were asked for their written consent, and the right to voluntary participation, right to withdrawal, and the confidentiality and anonymity of the information provided by the respondents were guaranteed. All this ensured the integrity and validity of the information collected, as the respondents were encouraged to be honest during the research (Hair et al., 2007). Besides, a cover letter containing the title, purpose, significance, and the expected time for the completion of the study was attached to the questionnaire.

4. Result and Discussion

This part of the study provides findings and discusses the performance of Cambodian public hospital in terms of responsiveness and the level of satisfaction that patients experience from the selected settings. The conclusions are based on the findings obtained from the 220 participants and include the nature of them, the responsiveness of public hospitals, the satisfaction that patients' experience, and the relationship between responsiveness and satisfaction. The findings also sought to enlighten patients in general about non-clinical aspects of quality healthcare and the effect that responsiveness may have on satisfaction in public health facilities.

4.1. Demographic Information

Table 2. Demographic Information of Participants

Characteristic	Category	Frequency	Percentage (%)
Gender	Male	89	40.5
	Female	131	59.5
Age	Under 30	45	20.5
	Between 30-50	81	36.8
	Over 50	94	42.7
Occupation	Civil servant	17	7.7
	Employee	70	31.8
	Self-employed	58	26.4
	Farmer	75	34.1
Type of coverage	NSSF	103	46.8
	HEF	60	27.3
	OOP	57	25.9

Note: NSSF= National Social Security Fund, HEF= Health Equity Fund, OOP= Out-Of-Pocket Payment

Table 2 above reveals that the demographic characteristics of the 220 samples indicate a higher proportion of females than males, with 131 participants (59.5%) being females and 89 (40.5%) being males. In terms of age distribution, the largest group comprised samples aged above 50 years, accounting for 94 individuals (42.7%), followed by those aged between 30 and 50 years with 81 samples (36.8%), while 45 samples (20.5%) were below 30 years old. Regarding occupation, farmers represented the highest proportion at 75 samples (34.1%), followed by employees with 70 samples (31.8%), self-employed individuals with 58 samples (26.4%), and civil servants with 17 samples (7.7%). Concerning health coverage, nearly half of the samples were covered by the National Social Security Fund, totalling 103 individuals (46.8%), while 60 samples (27.3%) were beneficiaries of the Health Equity Fund, and the remaining 57 samples (25.9%) relied on out-of-pocket payments for healthcare services.

4.2. Findings of the First Research Question: What is the level of practice of responsiveness in public hospitals?

As revealed in Table 3, the overall level of responsiveness practiced in public healthcare setting was found to be high (M = 4.15), indicating generally positive patient perceptions across the assessed dimensions. The most important dimension of responsiveness was autonomy (M = 4.27), followed by confidentiality (M = 4.24). Prompt attention and access to social support shared the third rank, each recording a mean score of 4.23. Dignity was positioned fifth with a mean of 4.07, while quality of basic amenities and choice of care worker ranked sixth and seventh, with mean scores of 4.02 and 3.89, respectively.

The findings clearly show that the level of hospital responsiveness in public healthcare facilities is perceived as high level. This is an indication that public healthcare facilities in Cambodia are progressively meeting the legitimate expectations of patients in terms of non-clinical aspects of healthcare services. This is clear support for the WHO's responsiveness model that incorporates aspects of patient-centered healthcare services such as dignity, autonomy, confidentiality, and prompt attention. The high level of autonomy, confidentiality, and prompt attention is an indication that healthcare providers in Cambodia value the rights of patients and the importance of effective service delivery. The rising level of hospital responsiveness in public healthcare facilities in Cambodia could be an indication of ongoing healthcare reforms in the country, increased government funding of healthcare services, and efforts by healthcare facilities to improve the quality of services in the country. In the dimensions, the highest scores were obtained in autonomy, followed by confidentiality and prompt attention and access to social support, showing a significant institutional concern to respect the rights of the patients and to provide a quality service efficiently.

To contextualize this score within a broader comparative framework, it is noteworthy that Mohammadi and Kamali (2014) reported an overall responsiveness mean of 3.67 in Iranian public hospitals, while Kashkoli et al. (2017) found a mean responsiveness score of 3.92 in similar settings. The overall mean of 4.15 found in this study therefore reflects a comparatively higher level of perceived responsiveness, though direct comparison must be made with caution given differences in instrument design, patient populations, and national healthcare contexts. Importantly, the areas of relative weakness identified in this study — quality of basic amenities (M = 4.02) and choice of care worker (M = 3.89) — are consistent with deficiencies commonly reported across developing health systems, where physical infrastructure and specialist availability remain persistent challenges (Kurti & Kalaja, 2024; Park & Kim, 2025). This pattern suggests that while Cambodia's overall responsiveness is performing comparably to or above regional peers, targeted investment in infrastructure and human resources remains necessary.

Table 3. The Mean, Standard Deviation, and Level of Hospital Responsiveness (n = 220)

Dimensions	Mean	SD	Meaning	Ranking
Dignity	4.07	0.75	High	5
Autonomy	4.27	0.71	High	1
Confidentiality	4.24	0.73	High	2
Prompt Attention	4.23	0.73	High	3
Quality of Basic Amenities	4.02	0.71	High	6
Choice of Care Worker	3.89	0.77	High	7
Access to Social Support	4.23	0.75	High	3
Overall	**4.15**	**0.73**	**High**	

However, the high responsiveness found in this study is inconsistent with some international findings. Responsiveness has been a major source of patient dissatisfaction, particularly waiting times and patients' information for example in a study by Ozretic (2020). Likewise, the relatively low scores in this study for quality of basic amenities (M = 4.02) and choice of care worker (M = 3.89) resonated with the concerns raised by Park and Kim (2025) and Kurti and Kalaja (2024) that the physical appearance of facilities and the ease of use of medical equipment are important determinants of patients' perceived healthcare quality. The relatively lower ranking for the choice of care worker dimension in Cambodia is likely due to the limited number of specialists and health facilities currently available in the country. Despite these specific areas for improvement, the overall findings suggest significant progress in the provision of patient-centered services in Cambodian public hospitals relative to the challenges of health system performance in the past.

4.3. Findings of the Second Research Question: What is the level of satisfaction of patients after using healthcare services in public hospitals?

Table 4. The Mean, Standard Deviation, and Level of Patient Satisfaction (n = 220)

Dimension	Mean	SD	Meaning
Patient Satisfaction	4.36	0.74	High
Overall	**4.36**	**0.74**	**High**

Based on Table 4 above, the findings revealed that the level of satisfaction of patients after using healthcare services at public hospitals was at a high level (M = 4.36, SD = 0.74). This high score indicates that patients are satisfied with the

fulfilment of their non-clinical and experience expectations in their interaction with the healthcare system. The results are consistent with the study of Pouragha and Zarei (2016) who reported that most of the patients had a good experience in which the health care was provided through effective medical consultations and an appropriate physical environment. Besides, the results are in agreement with the results of Hussain et al. (2019) who suggested that prompt delivery of services and good communication by health care workers are generally linked to high levels of satisfaction.

Comparing this study to similar research, the mean satisfaction score of 4.36 is higher than the mean scores of 3.73 in Iranian outpatient settings reported by Pouragha and Zarei (2016) and 3.89 in Albanian primary healthcare reported by Kurti and Kalaja (2024). However, given the unique socioeconomic environment of Cambodia and the established impact of cultural reaction tendencies and baseline expectations on Likert-scale satisfaction ratings, this relatively higher score should be evaluated in the context of the literature review. Regardless of objective quality measures, patients who have traditionally had limited access to formal healthcare services may be more likely to express satisfaction after obtaining any institutionalized care. This disclaimer adds technical complexity to the understanding of the favorable results without diminishing them.

However, the high levels of satisfaction found in this study must be interpreted in light of certain areas for improvement identified in the literature on the subject. The general impression is good but the presence of physical facilities and accessibility of medical equipment are significant predictors of satisfaction that need to be constantly monitored, as identified by Park and Kim (2025), and Kurti and Kalaja (2024). This is more pertinent as the dimension of quality of basic amenities and choice of care worker scored among the lowest in this study. Despite these infrastructure obstacles, this high level of perceived satisfaction showed that public hospitals have made considerable progress in delivering patient-centred care, a key component of the country's drive to reach universal health coverage by 2035.

4.4. Findings of the Third Research Question: Is there a relationship between hospital responsiveness and patient satisfaction?

Table 5. Relationship between Responsiveness Practices and Patient Satisfaction (n = 220)

		Patient Satisfaction
Hospital Responsiveness	Pearson Product-Moment Correlation (r)	0.34**
	Sig. (2-tailed)	0.00

***Correlation is significant at the 0.01 level (2-tailed)*

Prior to conducting the correlation analysis, the assumptions of Pearson correlation were considered, including normality, linearity, and homoscedasticity. These assumptions were reviewed to support the appropriateness of Pearson correlation in examining the relationship between hospital responsiveness and patient satisfaction. As indicated in Table 5 above, hospital responsiveness and patient satisfaction have a moderate and significant relationship, according to the Pearson correlation value (r) of 0.34. This implies that the more effective the responsiveness, the more satisfaction received by patients using healthcare services at public hospitals. The findings of the third research question produced a moderate, statistically significant, positive relationship between hospital responsiveness and patient satisfaction. Essentially, this finding suggested that improvements to the responsiveness of hospitals, in terms of dimensions such as autonomy, confidentiality, prompt attention and access to social support, are related to higher levels of patient satisfaction with the services delivered by public hospitals. These findings are supportive of and extend the WHO's health system responsiveness conceptual framework, which identifies dignity, autonomy, confidentiality, and prompt attention as critical dimensions of patient-centered health system performance. The significance value ($p < 0.01$) confirms that this relationship is statistically significant and unlikely to have occurred by chance, emphasizing the importance of respect for persons and client orientation to patient retention in the public hospitals across Cambodia.

Even while a moderate correlation (r = 0.34) might seem insignificant statistically, its practical importance needs to be considered in the particular context of healthcare service delivery. With a coefficient of this size, hospital responsiveness alone accounts for about 11.6% of the variation in patient satisfaction ($r^2 = 0.116$). This explanatory ability is a significant and useful contribution since patient satisfaction is intrinsically multifaceted, comprising clinical outcomes, individual health trajectories, and psychological aspects outside the purview of this study.

More critically, the moderate correlation suggests that while responsiveness matters, it is not the sole determinant of satisfaction, and policy interventions should be strategically targeted rather than broadly diffused. Given that the dimensions of quality of basic amenities (M = 4.02) and choice of care worker (M = 3.89) were ranked lowest among responsiveness dimensions in this study, these represent the most actionable leverage points. Specifically, targeted

investment in improving hospital infrastructure — including cleanliness, waiting areas, and equipment — alongside systematic workforce development to expand specialist availability, may yield the greatest incremental gains in patient satisfaction relative to resource expenditure. Hospital managers should therefore prioritize these two dimensions in quality improvement plans, rather than applying uniform improvements across all responsiveness domains. This approach aligns with evidence-based resource allocation principles and supports Cambodia's broader Universal Health Coverage goals by addressing the most impactful service quality gaps.

Similar findings have been published in different global research studies such as Hussain et al., 2019, Kashkoli et al., 2017 who recognized excellent communication, interpersonal engagement and rapid service delivery as one of the most important factors of patient satisfaction. The results further confirm earlier study which has suggested a good correlation between effective communication and interpersonal connection, and patient's happiness to be of a moderate to high degree (Kurti & Kalaja, 2024; Punch & Punch, 2005). Furthermore, the findings are consistent with the findings of Luxford et al. (2011) and Pouragha and Zarei (2016) who stated that paying attention to non-clinical care such as emotional support and respect has an important impact in increasing the quality of patient experiences and treatment compliance. The analysis confirms the empirical link of the factors, and that enhancing practices around responsiveness is a crucial method for Cambodia to meet its targets for Universal Health Coverage by 2035 and to achieve the objectives of SDG 3. This study adds to the little empirical literature on health system responsiveness in developing countries and particularly in Cambodia where evidence is still very limited.

5. Conclusion

The results of this study showed that the hospital responsiveness was overall high with an average score of 4.15, indicating that public hospitals generally meet the patient's expectations in terms of dignity, autonomy, confidentiality, prompt attention, quality of basic amenities, choice of care worker and access to social support. Among these dimensions, the autonomy dimension scored the highest, followed by confidentiality and prompt attention and access to social support, which identified a strong respect for the patient's rights and service efficiency. However, basic amenities and choice of care worker were rated lower, indicating areas where improvement is needed. The patient satisfaction was high with overall mean score of 4.36 and most of the patients were satisfied with the healthcare services they received. The inferential analysis found a moderate and statistically significant positive correlation between hospital responsiveness and patient satisfaction ($r = 0.34$, $p < 0.01$), which suggest that improvements in responsiveness are associated with increased patient satisfaction. Even though the quality basic amenities and choice of care worker practice is lower compared to other dimensions, this is because health facilities and specialists in healthcare are still limited in Cambodia.

In conclusion, the present study provides empirical evidence of the relevance of hospital responsiveness as a fundamental factor of patient satisfaction in the public health care system of Cambodia. The high scores on responsiveness and satisfaction show that public hospitals have achieved substantial progress in the delivery of patient-centred services, particularly with regard to respect for autonomy, confidentiality, prompt care and access to social support. But the relatively low rankings for quality basic amenities and choice of care worker imply a need to continue investing in health care infrastructure and human resources. The high positive correlation between responsiveness and patient satisfaction lends more support to the notion that non-clinical features of care are important determinants of patients' perceptions on health care. Strengthening responsiveness practices should continue to be a strategic priority for hospital management and health authorities to improve service quality, support Cambodia's Universal Health Coverage targets and improve overall health system performance.

The outcomes of this study provide some critical recommendations to improve patient satisfaction in Cambodian healthcare settings through the improvement of hospital responsiveness. However, while the level of responsiveness seems high, it is important to introduce continuous capacity building programs to improve healthcare workers' communication skills, respect for patient dignity, confidentiality, and emotional support, in accordance with the principles of patient-centered care. Hospital administrators should also focus on minimizing waiting times by enhancing appointment systems, patient flow management and workforce allocation, especially during peak service hours. There is need to improve quality basic amenities including cleanliness, comfortable waiting areas and adequate facilities to provide a supportive care environment. Given that choice of care worker was the least ranked responsiveness characteristic, progressive development of human resources and expert services should be addressed. Further, the institutionalization of regular patient feedback channels will help hospitals track service quality and make improvements based on data. At the policy level, the inclusion of responsiveness indicators in national healthcare

quality standards and performance evaluations can enable sustained development of services and help to Cambodia's progress towards SDG 3 and universal health coverage.

Despite these contributions, the study has some limitations. The use of convenience sampling may limit the generalizability of the findings to all public hospital patients in Cambodia. Although data were collected from 11 public hospitals, the participants were selected based on availability and willingness to participate. Therefore, future studies are encouraged to employ probability sampling techniques and include a larger and more diverse patient population to strengthen the external validity of the findings.

Future studies should continue to focus on the quality of hospital responsiveness with the ultimate goal of establishing a standardized model that meets the needs of the health system. Those studies should take into consideration the cultural and systemic characteristics of the health system in Cambodia to ensure that the proposed model meets the needs of the system and facilitates effective evaluation of the responsiveness of hospitals at various levels of the system. Additionally, future studies should also compare the quality of responsiveness in different types of hospital users, including those under the national health insurance system and those who use out-of-pocket payment. Such studies will generate valuable information on the disparities that may exist in service delivery and will assist policymakers and health service providers in identifying gaps in health service delivery and ensuring equitable health services. Finally, future studies should seek to develop innovative methods and approaches to evaluate hospital responsiveness more effectively with the ultimate goal of ensuring patient satisfaction. Such studies will generate valuable information to assist the Royal Government of Cambodia in its efforts to improve the health system in the country and enhance the quality and responsiveness of health services.

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