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Abstract

Purpose: This study aimed to develop a context-sensitive conceptual framework for health systems responsiveness in chronic care by integrating empirical evidence and literature.

Methodology: A quasi-experimental design was employed across three Kenyan hospitals, incorporating baseline, intervention (training), and end-line evaluations. From a total of 853 patients, 323 were sampled using Fisher's formula, with 258 retained at end line. Responsiveness was measured using structured five-point Likert-scale questionnaires, later dichotomized into favorable and unfavorable categories using a demarcation threshold. Quantitative analysis included logistic regression to identify predictors. Qualitative data were collected through three provider focus group discussions (27 participants), three client focus groups (20 participants), and three key informant interviews, and analyzed thematically.

Results: The intervention improved overall responsiveness from 63.7% to 67.4%, while the proportion of patients experiencing responsive care rose from 38.3% to 52.7%. Odds of receiving responsive care nearly doubled. Significant predictors included structural capacity (OR=2.171), accountability (OR=2.730), organizational culture (OR=2.267), and justice perceptions (OR=2.909). Model explanatory power increased from 15.7% at baseline to 32.8% post-intervention, and 40.4% when socio-demographic variables were included. Qualitative findings revealed four themes: resource constraints, weak accountability, limited patient agency, and structural inequalities shaping responsiveness outcomes.

Conclusion: It views responsiveness as an outcome shaped by three elements: context (policy, resources, sociocultural and environmental factors), drivers (valuations, accountability, access, structure, culture, justice and perceptions), and actors (engaged clients and competent providers). This dynamic interaction emphasizes systemic investment in policy, training, and equity to enhance patient-centered care and health outcomes.

Keywords: *Health System Responsiveness, Framework, Chronic Conditions, Diabetes Mellitus, Hypertension*

1.0 Introduction

Health services ought to improve health in responsive ways while guaranteeing financial protection from catastrophic expenditure(Papanicolas et al., 2022). This study focused on health systems responsiveness among chronic care centres particularly for patients with diabetes and hypertension. A health system encompasses all organizations, individuals, and activities primarily aimed at promoting, restoring, or maintaining health. Within this framework, responsiveness denotes the extent to which the health system meets individuals' legitimate expectations concerning the quality of client–provider interactions, the care environment, and the fulfillment of non-medical needs(Khanpoor et al., 2025).

Chronic care pertains to the sustained management and long-term treatment of medical conditions that are persistent, progressive despite therapeutic interventions, and generally incurable. In contrast, acute care refers to the management of health conditions characterized by a sudden onset, short duration, and often severe course, which are typically amenable to cure or reversal(GBD 2019 Acute and Chronic Care Collaborators, 2025). Patient experience has become central to evaluating health system performance and improving quality. It is a key element of patient-centered care and vital to defining high-quality, value-based healthcare which is more critical in chronic care which is the focus for this study(Gilmore et al., 2023).

To be responsive, a health system must meet clients' reasonable non-health expectations. World Health Organization defines responsiveness in two areas: respect for individuals (dignity, autonomy, communication, confidentiality) and client orientation (timely care, amenities, choice, and social support access)(Stewart Williams et al., 2020). Responsiveness reflects people's expectations for respectful treatment and well-being. It promotes satisfaction, supports human rights, builds trust in the health system, and has potential to improve population health (Adelabu et al., 2022; Ghoddoosinejad & Arab-Zozani, 2025; Srhan et al., 2024).This is crucial in chronic care centers, where ongoing treatment and frequent visits depend heavily on a responsive health system(Tunsi et al., 2023).

In considering responsiveness, recent frameworks highlight supply and demand actors, operational environment (resources, institutions), and accountability with feedback loops(Iqbal et al., 2025; Khan et al., 2021; Mirzoev & Kane, 2017).Based on these, this study identifies six predictors of responsiveness in chronic care: responsiveness valuations, accountability mechanisms, access factors, structural factors, organizational culture, and justice perceptions.

Valuations reflect perceived legitimacy of responsiveness, individual influence on the system, and personal contribution, shaping expectations and ultimately determining satisfaction during healthcare interactions(Kagwanja et al., 2024). Healthcare structures: facilities, resources, staff, and systems; shape provider and patient behavior, influencing supply-side determinants of health system responsiveness(Leslie et al., 2017; Mirzoev & Kane, 2017). Responsiveness and accountability are linked through internal and external mechanisms, influenced by oversight, competition, information, provider beliefs, community or NGO involvement and public opinion. It encompasses several dimensions including legal, public, financial professional and political accountability(Jalilvand et al., 2024). Access elements such as approachability, acceptability, availability, accommodation, and cost; affect individuals' ability to seek and use care (Oliveira & Pereira, 2024).These elements directly influence health system responsiveness by shaping user experiences and expectations, particularly in how easily and fairly services are delivered (Cu et al., 2021). Organizational culture as well influences shapes staff behavior and service quality; supportive cultures enhance responsiveness, while poor cultures hinder it, affecting overall health system performance and patient satisfaction(Akpa et al., 2021). Further, Justice Perceptions on influence health system

responsiveness by shaping trust, fairness, and equity in care delivery, impacting patient satisfaction, engagement, and willingness to seek services(Peterson et al., 2021).

Chronic diseases, including cancer, diabetes, and heart disease, are the most common and costly global health issues, affecting all populations and consuming up to 70% of healthcare spending. In 2016, non-communicable diseases accounted for 41 of the 57 million global deaths (71%)(Cygańska et al., 2023; Hvidberg et al., 2020). Low- and middle-income countries bear 78% of non-communicable disease deaths amid weak health systems. With rising life expectancy, especially in developed nations, chronic conditions grow. Up to 86% of adults over 65 years have at least one, and related prescriptions and tests have risen over 25% in a decade(Atella et al., 2019). This study is delimited to diabetes mellitus and hypertension.

Diabetes, characterized by high blood sugar levels, affects around 537 million people (10.5% of adults aged 20-79) globally. By 2045, this is expected to rise to 783 million.(Kumar et al., 2024); Urbanization and sedentary lifestyles will mainly drive this increase. In Kenya, inconsistent data yields variable diabetes prevalence, ranging from 2.4% to 3.5% of the population. (Otieno et al., 2021). A study found diabetes prevalence at 2.4% in urban areas, 3.4% in the wealthiest quintile, 1.9% in rural areas, and 1.6% in the poorest quintile. (Mohamed et al., 2018). Another more recent study places the prevalence of type 2 diabetes at 4.2% of the general population, with 2.2-2.7% in rural and 10.7-12.2 % of the urban population affected (Kiarie et al., 2023).

Hypertension affects 22% of adults globally, 27% in Africa; driven by poor diets, inactivity, alcohol, tobacco, and stress. It complicates diabetes, requiring integrated care; Kenya reports similar prevalence at 22%(Mogaka et al., 2022) and 29% (Pengpid & Peltzer, 2020).Chronic care requires sustained, patient-centered interactions that existing general health system responsiveness frameworks often fail to address. With the rising global burden of chronic diseases, especially in low- and middle-income countries, there is a need for a tailored explanatory framework that captures the complex, long-term nature of chronic care(Chhetri et al., 2026).

Globally, the world health organization framework on health systems 2000 formed the most pivotal milestone in framing responsiveness as a cardinal goal for all health systems. It focused largely on the dimensions of a responsive health system. This was followed by several surveys and discussions that led to inclusion of more dimensions and consideration of various aspects including actors; supply and demand side actors, effect of context spanning the political, environmental, social, resource base and legal, and reconceptualizing the concept of responsiveness(Khan et al., 2021; Khanpoor et al., 2025; Mirzoev & Kane, 2017).

While these frameworks have provided useful ground for understanding responsiveness, they fall short of being comprehensive enough to address the responsiveness goal especially among chronic care centres. For instance, the WHO framework was limited to describing the domains, the Robone framework; while expanding on the WHO framework and effectively considering the context fell short in regard to capturing the actors.

The more encompassing framework by Mirzoev and Kane(Mirzoev & Kane, 2017) while capturing the role of actors fails to elucidate the specific drivers. The recent frameworks including the Khan el al framework(Khan et al., 2021) did more to redefine the concept of responsiveness and lately the framework by Khanpoor et al (Khanpoor et al., 2025) while providing a more expanded and framework considering drivers was more broadly focused on

public health, was limited in the role of actors and could not capture the particular contexts of chronic care.
The Kenyan government introduced patient charters, improved information systems, and formalized complaint procedures to boost responsive care(Khan et al., 2021; Njuguna, 2020). Despite these efforts, clients and providers often overlook accountability measures, sometimes resulting in disrespectful care that undermines responsiveness (Kagwanja, 2023; Lusambili et al., 2020; Njuguna, 2020).

Against this backdrop, we set to review literature on existing frameworks and combined with the empirical findings, propose a conceptual framework for understanding health system responsiveness among chronic care centers. This proposed framework aims to fill current conceptual gaps by emphasizing the interplay between patients, providers, and systemic factors over time. It offers a structured approach to understanding and improving responsiveness, guiding policy, interventions, and accountability to enhance patient experiences and outcomes in chronic care settings (Semyonov-Tal, 2024).

2.0 MATERIALS AND METHOD

This article combines literature review and empirical findings from a pre- and post-intervention survey in three Kenyan primary hospitals; Gatundu in Kiambu County (urban), Uasin Gishu in Uasin Gishu County (peri-urban), and Kimilili in Bungoma County(rural) (Macharia et al., 2021). It reviews existing frameworks on health system responsiveness and, drawing from both sources, proposes conceptual framework to guide future evaluations and improvements.

The Literature Search

A comprehensive literature review was conducted to identify predictors and frameworks of health system responsiveness. The iterative search informed the survey's objectives and hypotheses.

The Empirical Design

This study assessed health system responsiveness and its predictors: accountability mechanisms, access, structural factors, valuations, organizational culture, and justice perceptions; among diabetes and hypertension patients at three Kenyan primary hospitals. Using a quasi-experimental design, it involved baseline and end-line surveys with a training intervention on responsiveness and client interaction for health workers. A sample of 323 respondents was drawn from a frame of 853 using Fisher's formula;308 responded at baseline while 258 participated in the end-line survey. Data were collected through interviewer-assisted structured questionnaires, rated on a five-point Likert scale and dichotomized into favorable and unfavorable categories using a demarcation threshold formula(Fetene et al., 2022)

Sample Size estimation

The sampling frame was 853 patients enrolled in care for diabetes mellitus, hypertension or both. Sample size was determined using the Cochrane formula (Taherdoost, 2017);$n=z^2pq/d^2$ yielding a sample size 266. Since this was a before and after survey; to provide for non-retention, 10 % was added, and a further 10% was also added for non-response, as suggested by Fetene et al., (2022) bringing the total sample size to 323. Systematic random sampling was used to select 323 respondents by including every third patient.

Table 1

Table showing sample size distributions

Hospital	Population	Calculated New sample size	Adjusted sample size	Duly filled
Kimilili	167	52	81	80
Uasin Gishu	256	80	108	98
Gatundu	430	134	134	130
Total	**853**	**266**	**323**	**308**

Qualitative Approaches

The study involved key informants who were heads of chronic care units, purposively selected due to their coordination role and knowledge of supply-side responsiveness. It also involved focus group discussions conducted across the three facilities. One FGD per facility was held with healthcare providers, with 8–10 participants per group, totaling 27 participants across all sites. Similarly, one FGD per facility was conducted with clients, with 6–8 participants per group, totaling 20 participants. Overall, the qualitative component captured perspectives from both healthcare providers and clients across all study sites.

Data Collection

Data from a structured questionnaire included socio-demographics (location, age, gender, condition, religion, marital status, insurance, income, education) and six predictors: accountability, access, structural factors, valuations, organizational culture, and justice perceptions. Responsiveness was rated on a 5-point Likert scale across promptness, respect, involvement, communication, choice, confidentiality, amenities, social support, and trust. Key informant interviews with nurse managers explored administrative aspects including staffing, training, supplies, infrastructure, service organization, and accountability. Separate focus groups with healthcare providers and patients examined perceptions of responsiveness, needs, roles, challenges, managerial support, and improvement strategies for responsive care.

Validity and Reliability

Data collection tools were reviewed, pretested, and revised to enhance validity. Standardized tools were reviewed by the research team for completeness and consistently administered to all respondents. Random sampling minimized selection bias, and reliability was confirmed using Cronbach's alpha(Amirrudin et al., 2021).

Ethical approval

Approval was obtained from the Research Ethics Committees of Kenya Methodist University (Approval No: KeMU/SERC/HSM/4/2020) and Moi University (Approval No: 0003643). A research license was obtained from NACOSTI (License No: NACOSTI/P/20/5650). Permissions were obtained from hospital managements teams, while written informed consent was obtained from all participants, who were informed of their right to withdraw from the study at any time.

3.0 RESULTS AND DISCUSSION

Results from Literature Review

Definition and evolution of health systems responsiveness

The World Health Organization (WHO) highlighted responsiveness as a key objective in health systems alongside health outcomes and financial equity(Khan et al., 2021).Recognized as a tool for evaluating health system performance, responsiveness has been reinforced by global initiatives like the Talin Charter (World Health Organization, 2008)and guidelines from the

National Institute for Health and Care Excellence and The Warwick patient experiences framework(Staniszewska et al., 2014).It refers to a health system's ability to meet the non-medical expectations of the population, focusing on human rights and client-centeredness(Mirzoev & Kane, 2017).This includes dignity, autonomy, effective communication, and privacy, as well as prompt attention, access to social support, and provider choice. Researchers continue to explore responsiveness as both a performance measure a quality indicator(Busse, et al., 2019) and an accountability mechanism for health systems(Khan et al., 2021; Khanpoor et al., 2025; Mirzoev & Kane, 2017).

Although responsiveness and patient satisfaction share similarities, they differ in scope and rationale(Busse, et al., 2019).Responsiveness evaluates the entire health system based on universal expectations, whereas patient satisfaction is shaped by personal experiences and needs(Comes et al., 2016).It also specifically examines non-health-improving aspects of healthcare(Mirzoev & Kane, 2017).Ensuring universally accepted expectations enhances legitimacy in responsiveness assessments. For low- and middle-income countries, equitable access to healthcare is crucial for improving service utilization(Altabbaa et al., 2024) Evaluating health system responsiveness helps measure performance, but ongoing refinement and monitoring are needed to align services with patients' expectations and improve non-medical dimensions of care (Negash et al., 2022).

Earlier works that reflect responsiveness include the conceptualization of health as extending beyond the absence of disease, encompassing physical, mental, and social well-being, as articulated in the WHO Constitution of 1948 (Andrea, 2018)that emphasized a holistic, rights based approach to patient care. Further, Donabedian conceptualized healthcare quality as structure, process, and outcome, emphasizing that responsiveness lies in provider-client interactions and amenities, influencing patient satisfaction and overall care quality(Donabedian, 1966; Hanefeld et al., 2017).

Building on Donabedian's work, the Institute of Medicine (IOM) introduced a Quality Assurance Strategy in 1990, defining quality as the extent to which healthcare services enhance desired health outcomes(Institute of Medicine (US) Committee on Quality of Health Care in America, 2001). Donabedian further refined this into seven pillars of quality namely efficacy, effectiveness, efficiency, optimality, acceptability, legitimacy, and equity; which were later synthesized into six healthcare goals by the IOM in "Crossing the Quality Chasm" (Donabedian, 1973; National Academies of Sciences, Engineering, and Medicine et al., 2018).These goals; safety, effectiveness, patient-centeredness, timeliness, efficiency, and equity now serve as benchmarks for health system responsiveness. As healthcare evolved, the focus shifted from simply measuring patient satisfaction to understanding actual patient experiences, with agencies like the Agency for Healthcare Research and Quality developing experience-based surveys (Donabedian, 1980; Institute of Medicine, 2001).

Existing Frameworks for Health Systems Responsiveness

The WHO's 2000 report positioned health system responsiveness as a fundamental objective alongside health improvement and equitable financing(Paschoalotto et al., 2026).It introduced dimensions of responsiveness, categorizing them into objective factors (e.g., timeliness, quality of facilities, access to social support) and subjective factors (e.g., dignity, autonomy, confidentiality)(Valentine & Bonsel, 2016).Further frameworks suggested more possible domains not captured by the world health organization model. These include suggestions such as clear communication(Letkovicova et al., 2005)as a key characteristic of effective health

systems at both system and provider levels (Coulter & Jenkinson, 2005),and; in the context of HIV care; Access to social support, continuity and follow-up, and quality of counseling and testing, emerged as crucial factors for responsiveness in the context of voluntary counselling and testing(Njeru et al., 2009) effective care ,attention and access to care(Forouzan et al., 2011) and trust(Röttger et al., 2014).

Responsiveness has also been linked to broader social rights, emphasizing inclusivity, accountability, both internal or beauracratic and external or social accountability(Cleary et al., 2013), Over time, responsiveness has been increasingly viewed as a social good, with an emphasis on citizen participation and governance(Brinkerhoff, 2004) and minority group representation(Askari et al., 2016; Bridges et al., 2019).Khan et al. (2021) classified responsiveness into three dimensions: the user-service interface, responsiveness as a feedback mechanism, and responsiveness as accountability.

Factors such as health spending per capita, public health expenditure, and population education levels appear to exert an impact on responsiveness. Robone et al. introduced a conceptual framework for health system responsiveness, comprising four main components: environment, population characteristics, access and utilization of health services, and responsiveness. These elements exhibit a reciprocal interrelation. Within the framework, Environmental characteristics are categorized into three primary groups: resources, health system attributes, and institutional factors. These categories correspond to the role of health policy in shaping the context for healthcare organization and delivery(Robone et al., 2011).Expanding on this perspective, Valentine et al underscored the importance of considering social determinants in the exploration of responsiveness(Valentine & Bonsel, 2016).

Subsequently, Mirzoev and Kane (2017) introduced a broader framework that takes into account the impact of actors' expectations, processes, institutional and organizational structures, encompassing elements like accessibility and quality of health services, on health system responsiveness. Additionally, they incorporated the acknowledgment of the role of context, encompassing factors such as resources, political dynamics, and cultural influences.

Efforts to enhance responsiveness include short-term interventions, such as patient feedback mechanisms and social audits, and long-term strategies, such as policy reforms and governance restructuring(Srivastava et al., 2015; Tripathy et al., 2016; Yakob & Ncama, 2017). This broader perspective acknowledges both immediate healthcare interactions and the systemic factors shaping patient experiences.

Critique of the existing frameworks

While existing frameworks such as those developed by the WHO, Donabedian, IOM, and various scholars have significantly advanced the conceptualization of health system responsiveness, several gaps remain. First, many models are limited in scope, emphasizing provider-patient interactions while inadequately addressing broader systemic influences such as social determinants, health policy, and political context(Robone et al., 2011). Second, frameworks often lack adaptability across diverse healthcare contexts, particularly in low- and middle-income countries where resource constraints and governance structures differ(Mirzoev & Kane, 2017; Robone et al., 2011; Valentine & Bonsel, 2016). Third, many frameworks overemphasize structural and procedural aspects, often sidelining subjective patient experiences, especially in chronic care settings that require continuity and deeper patient engagement. Additionally, the WHO model's fixed domains fail to fully capture important elements like clear communication, follow-up care, and trust, which have emerged in studies focusing on HIV care and other chronic conditions(Atiende & Ndolo, 2025; Chhetri et al., 2026; Mirzoev et al., 2025; Mirzoev & Kane, 2017; Robone et al., 2011). There is also

insufficient integration of accountability mechanisms, both internal and external, and limited attention to inclusivity and minority representation(Atela et al., 2015; Atiende & Ndolo, 2025; Jalilvand et al., 2024, 2025). Lastly, while newer frameworks like those by Robone et al and Mirzoev and Kane incorporate environmental, policy, and cultural factors, there remains a gap in linking these macro-level influences with micro-level patient experiences, creating a need for more comprehensive and context-sensitive models. More specifically, the model by Mirzoev while being comprehensive in addressing the important elements in understanding responsiveness by examining the context and actors, has the limitation of identifying the specific drivers that shape the experience from a health system perspective(Mirzoev et al., 2025; Mirzoev & Kane, 2017; Robone et al., 2011).

Empirical Findings

Quantitative Findings

At both baseline and end line survey a backward conditional binomial logistic regression was conducted to identify critical predictors out of the six predictors; responsiveness valuations. Access factors, structural, accountability, organizational culture and justice perceptions. Accountability mechanisms, structural factors, organizational culture, and justice perceptions consistently showed significant impact. For parsimony effectiveness and efficiency, the final model was based on the end line survey which showed better predictive value. The end line model validates the findings of the critical predictors at baseline. The models are presented in Tables 2, 3, 4, and 5

Table 2: The Regression Models at Baseline

	Variables in the model		Predicted		
			Responsiveness Categories		Percentage Correct
			Unfavorable	Favorable	
Step 0	Responsiveness Categories	Unfavourable	190	0	100%
		Favourable	118	0	0
	Overall Percentage				61.7
Model 1	Valuations Accountability Access Structural Organisational Culture Justice	Unfavourable	155	35	81.6
		Favourable	72	46	39
	Overall Percentage				65.3
Model 2	Accountability Access Structural Organisational Culture Justice	Unfavourable	155	35	81.6
		Favourable	72	46	39
	Overall Percentage				65.3
Model 3	Accountability Structural Organisational Culture Justice	Unfavourable	151	39	79.5
		Favourable	63	55	46.6
	Overall Percentage				66.9

Table 3: ***Final regression model at baseline***

		B	S.E.	Wald	Df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
	Accountability	.523	.259	4.085	1	.043	1.687	1.016	2.802
	Structural	.770	.257	8.976	1	.003	2.160	1.305	3.574
	Organisational Culture	.605	.263	5.275	1	.022	1.831	1.093	3.069
	Justice	.530	.268	3.916	1	.048	1.698	1.005	2.870
	Constant	-1.647	.249	43.708	1	.000	.193		

Table 4: ***The Regression Models at End line***

	Variables in the model		Predicted		
			Responsiveness Categories		Percentage Correct
			Unfavourable	Favourable	
Step 0	Responsiveness Categories	Unfavourable	122	0	100%
		Favourable	136	0	0
	Overall Percentage				52.7
Model 1	Valuations Accountability Access Structural Organisational Culture Justice	Unfavourable	85	37	69.7
		Favourable	36	100	73.5
	Overall Percentage				71.7
Model 2	Accountability Access Structural Organisational Culture Justice	Unfavourable	84	38	68.9
		Favourable	35	101	74.3
	Overall Percentage				71.7
Model 3	Accountability Structural Organisational Culture Justice	Unfavourable	88	34	72.1
		Favourable	42	94	69.1
	Overall Percentage				70.5

Table 5: ***The Final Regression Model Output at End line***

Variables in the Equation							
		B	S.E.	Wald	Df	Sig.	Exp(B)
Step 1[a]	Accountability Categories (1)	1.004	.303	11.001	1	.001	2.730
	Structural Categories (1)	.775	.303	6.561	1	.010	2.171
	Organizational Categories (1)	.819	.313	6.850	1	.009	2.267
	Justice Categories (1)	1.068	.323	10.903	1	.001	2.909
	Constant	-1.924	.318	36.563	1	.000	.146

The computed logit for the odds of having favorable responsiveness is1.742 which corresponds to the odds of about 5.7087 Thus the probability that one will experience favourable responsiveness conditional on favorable experiences among the predictors= {odds/1+odds) =5.7087/1+5.7087=5.7087/6.87087*100=85.09%.
It may be noted that after the training intervention, the model has improved significantly in its predictive power from 66.9% to 70.5% overall prediction. The probability of having responsive care on the basis of the favourable responsiveness on the basis of modelled factors improved from 68.5% to 85.1% between the baseline and end line models.

While valuations and access factors were not significant in chi-square tests, odds ratios suggested a subtle influence. A predictive model confirmed the same key predictors, with improved performance post-intervention; explained variation rose from 15.7% to 32.8%, and logit value increased from 68.5 to 85.1%. Adding the two variables marital status and occupation to the predictors in one block yielded a better model with the explained variation in the responsiveness rising to 40.4% by Nagelkerke R^2 with an improved classification level of 74.4%. Overall, therefore incorporating the socioeconomic variables of marital status and occupation as additional predictor variables led to a better-fitting model that indicates that these two variables are important in understanding and predicting responsiveness.

Qualitative Findings

Qualitative data from interviews and focus group discussions were recorded and transcribed. Content analysis was conducted to identify key themes through systematic coding, categorization, and interpretation of responses. Findings were integrated into the report using direct quotations and thematic frequencies following Kumar (2018). The qualitative findings corroborate and enrich the quantitative results. It underscored respect-for-persons domains with contextual variations. They revealed how health system responsiveness is shaped by power relations, resource parcel, and systemic governance. Particularly, responsiveness is shaped by four core themes: resource constraints and supply gaps; weak accountability and governance; low client voice and limited agency; and structural inequalities interacting with systemic weaknesses to influence outcomes.

Both patients and healthcare providers reported limited agency within the care system, reflecting constrained decision-making space and hierarchical structures. Patients frequently

prioritized access to treatment over voicing concerns, with one participant noting, *"we focus more on our treatment than other issues" (Female, FGD Kimilili).* Similarly, providers described restricted autonomy, with one manager stating*, "we maintain a wait and see attitude" (KII, Gatundu). Human agency is critical for ensuring accountable and responsive health systems*(Mirzoev et al., 2025). *Thus this study findings* falls short of the empowerment theory and envisions an ongoing relationship between clients and providers and their environments, designed to enhance both personal fulfillment and collective progress(Rachmad, 2022).

Accountability mechanisms were perceived as weak and largely symbolic. Both clients and staff demonstrated limited awareness and use of service charters and feedback systems. A patient noted, *"I have never looked at the service charter" (Male client, Uasin Gishu FGD),* while a provider remarked, *"service charters… are just routine requirements" (KII, Gatundu).* This aligns with quantitative findings showing persistently low accountability scores. This results mirror the conclusions by Atela et al., (2015) that accountability mechanisms are not always taken seriously. This portends a critical deficiency given the pivotal role accountability plays in ensuring responsive health systems(Khan et al., 2021; Khosravi et al., 2023).Key structural barriers included staffing shortages, drug stock-outs, weak logistics systems, and limited patient knowledge of chronic conditions, all of which undermined service responsiveness. Financial constraints and inadequate insurance coverage further restricted access, prompting calls for expanded NHIF enrolment and waiver systems. These require robust transparent systems to optimize service delivery(Atela et al., 2015; Atiende & Ndolo, 2025).

Despite these challenges, participants identified opportunities for improvement, including specialized chronic care clinics and expanded insurance coverage, which enhanced continuity of care and monitoring. Technological solutions such as mobile health platforms were also suggested, although concerns about digital exclusion were raised. One participant observed, *"most clients do not even have smartphones" (Male, Kimilili FGD).*

The qualitative findings strongly identify the contextual dimension is evident in structural and environmental constraints such as staffing shortages, drug stock-outs, weak logistics systems, financial barriers, and rural, urban disparities, all of which shape the conditions under which care is delivered and experienced. The drivers of responsiveness are reflected in governance and organizational processes, particularly weak accountability mechanisms, limited functionality of service charters, and constrained policy implementation. These factors influence how care processes are organized and how feedback is managed, thereby shaping system performance.

The actor dimension is demonstrated through the lived experiences and interactions of both patients and healthcare providers. Patients often expressed limited agency and acceptance of care limitations, while providers reported constrained autonomy and workload pressures, both of which affected their ability to deliver responsive care. Illustrative quotes highlight these dynamics, such as patients prioritizing treatment over complaints and providers adopting a "wait and see" approach. Collectively, the findings demonstrate that responsiveness emerges from the dynamic interaction of contextually embedded constraints, system-level drivers, and the behaviours and experiences of actors within the health system, thereby empirically reinforcing the proposed framework.

The Proposed Explanatory Framework

The proposed framework views responsiveness as the ***outcome*** of the interaction between three key elements: context, drivers, and actors. ***Contex****t* refers to policy, resource allocation, and

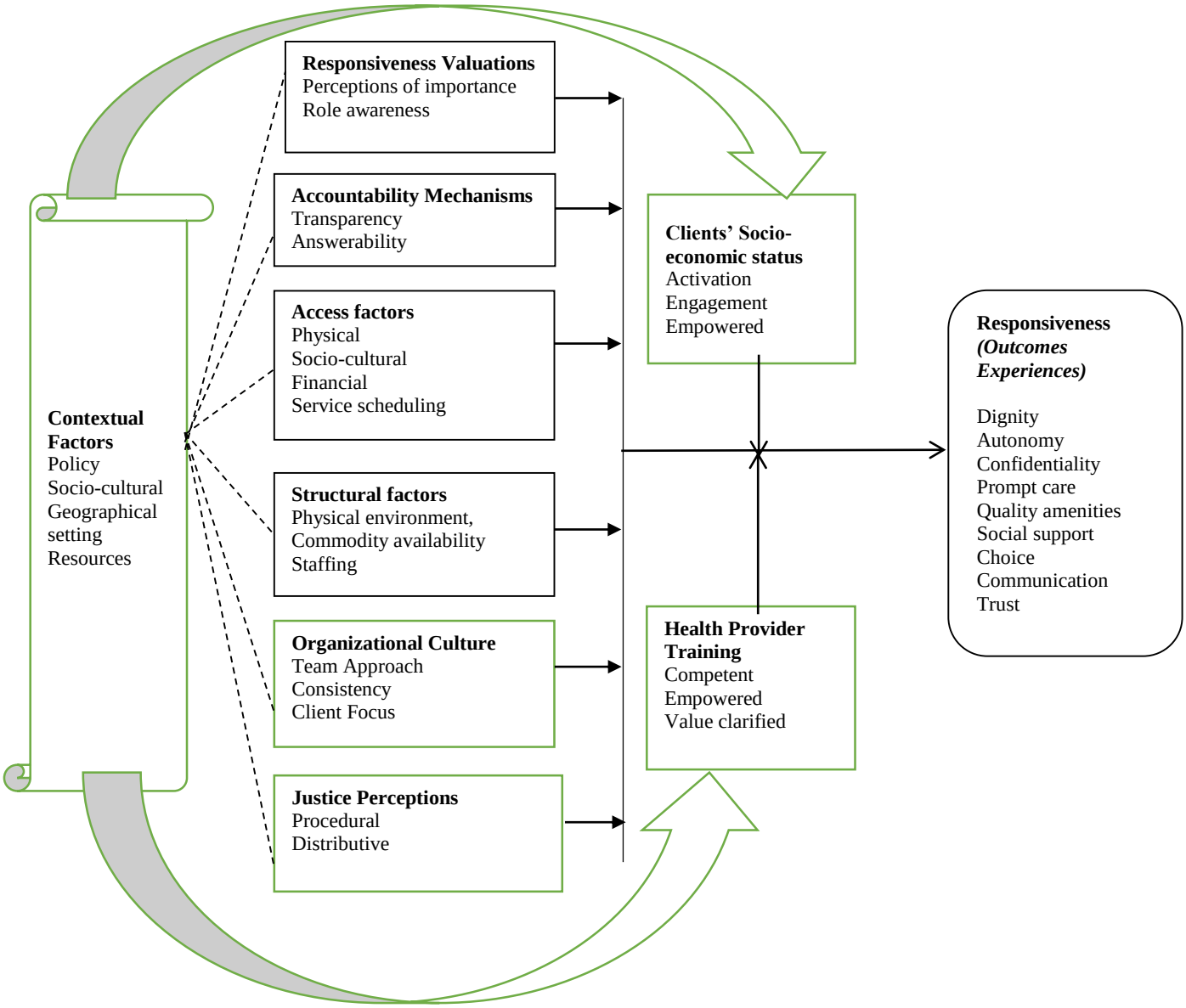
socio-geographical factors, which shape how responsiveness is experienced across different settings. For instance, the variation in responsiveness among the three facilities studied: rural, urban, and peri-urban; reflects the influence of both geographical and sociocultural diversity. In rural areas, cultural norms and practices can significantly affect patient-provider interactions. Resource availability is another critical contextual factor. It affects the quality of amenities, infrastructure, staffing, and the overall environment of care. Institutions with more resources are better equipped to offer choices, hire and motivate qualified staff, and deliver care in a more responsive manner(Robone et al., 2011; Sharma & Cotton, 2023).

The second element of the framework includes the ***drivers***; factors that directly influence the interaction between clients and healthcare providers. These drivers, drawn from systematic literature, include responsiveness valuations, accountability mechanisms, access factors, structural components, organizational culture, and justice perceptions. Valuations refer to how clients perceive the legitimacy of their expectations and their role in ensuring responsive care. Accountability mechanisms promote transparency and include tools such as feedback systems, service charters, and avenues for redress. Access factors encompass physical, financial, sociocultural, and organizational elements that determine the ease and convenience of obtaining care. Structural components involve the physical environment, availability of supplies, and human resources. Organizational culture speaks to the consistency, teamwork, and client-centric values within healthcare institutions. Justice perceptions, both procedural and distributive, influence how fairly clients feel they are treated(Atela et al., 2015; Jalilvand et al., 2025; Khan et al., 2021e; Mengistie et al., 2026; Sharma & Cotton, 2023; Srivastava et al., 2015).

The third element focuses on ***actors***: both clients and providers; whose actual interaction determines the realization of responsiveness(Atiende & Ndolo, 2025; Jalilvand et al., 2024b; Mirzoev & Kane, 2017e; Rachmad, 2022). Clients must be activated (aware of their rights), engaged (interested and involved in their care), and empowered (confident that their voice matters)(Soklaridis et al., 2017). These factors are influenced by socioeconomic status, which affects awareness and access to resources. On the other side, healthcare providers must be competent, empowered, and value-oriented emphasizing the role of self-agency and empowerment(Rachmad, 2022). This means not only possessing technical skills but also viewing responsiveness as a critical aspect of quality care. Training in responsive care is crucial to developing such providers. Evidence from the study shows that provider training leads to improved responsiveness, suggesting that it should be integrated into medical and nursing curricula(Kruk et al., 2018).

In summary, health system responsiveness is a dynamic **outcome** shaped by context, driven by structural and procedural factors, and actualized through the interactions of engaged, empowered clients and competent, responsive providers. The framework underscores the need for systemic investment in policy, resources, training, and equity to build a health system that truly meets the non-medical needs of its users. By focusing on these three layers—context, drivers, and actors-health systems can better align their services with patients' expectations and foster trust, satisfaction, and better health outcomes.
The framework is presented diagrammatically in figure 3.1

Figure 3.1: ***Conceptual Framework for Health Systems Responsiveness in Chronic Care***



4.0 Study Limitations

The study faced limitations including a focus mainly on health systems literature, exclusion of broader public service frameworks, and reliance on English-language sources only. Important insights from non-English literature were not included. Additionally, empirical data was collected from only three primary facilities in Kenya, limiting the generalizability of findings. These challenges highlight the need for more comprehensive, multilingual reviews and wider empirical research in diverse settings to better understand health system responsiveness.

5.0 Conclusions

The study entailed review of literature on health system responsiveness and combined it with empirical findings from Kenyan primary hospitals, propose a comprehensive conceptual framework. It views responsiveness as an outcome shaped by three elements: context (policy,

resources, sociocultural and environmental factors), drivers (valuations, accountability, access, structure, culture, justice and perceptions), and actors (engaged clients and competent providers). This dynamic interaction emphasizes systemic investment in policy, training, and equity to enhance patient-centered care and health outcomes.

Conflict of interest

The authors state that they have no conflict of interest.

Author contribution

All authors contributed to study conceptualization and design. Kibiriti Hillary conducted data collection, analysis, interpretation, manuscript drafting, and revision. Wanja Tenambergen and Mapesa Job supervised the study and reviewed the manuscript. All authors reviewed and approved the final manuscript.

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