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Advancing social sustainability in healthcare governance: development of a multi stakeholder decision-support framework

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Abstract

This study develops and validates a multi-stakeholder and multi-layer framework for assessing social sustainability in healthcare, grounded on the Service Logic theoretical perspective, whose emphasis on value co-creation as essential for aligning stakeholder needs in service design. Drawing on Staniskiene et al.'s (2018) definition and Colantonio's (2009) distinction between "hard" and "soft" dimensions of social sustainability, a scoping literature review allows to define six domains, eleven dimensions, and forty-two items. Validation through Nominal Group Technique involved thirteen healthcare professionals and five community volunteers. Results confirmed the framework's comprehensiveness but revealed substantial divergences: professionals ranked organizational and economic domains third and fourth, whereas community members prioritized social engagement, patient experience, and safety. Divergences at the sub-dimension level further underscored the necessity of stakeholder involvement. The resulting tool provides policymakers, hospital managers, and technology developers with a replicable decision-support instrument to align investments and initiatives with socially sustainable outcomes across the healthcare ecosystem.

Word count: 1975

Introduction

Sustainability has become a central concern in modern societies, shaping policies and organizational strategies, across different fields (Hristov et al., 2025). While environmental and economic sustainability have received significant attention in both academic and policy discussions, social sustainability remains relatively underdeveloped (Khan et al., 2018). As a result, the definition of this concept still lacks clarity and maturity (Lee et al., 2019; Dempsey et al., 2011). However, almost all scholars agree on describing social sustainability as the status of and the process for achieving social equity and addressing all the stakeholders' needs (Staniskiene et al., 2018), also responding to national performance normative frameworks.

Adopting the definition provided by Staniskiene and colleagues (2018), social sustainability is defined as “*the process and state through which a community achieves social equity and effectively meets the needs of all stakeholders*”, emphasizing both outcomes (e.g., equitable access, workforce well-being) and active community engagement. Moreover, Colantonio (2009) has shown how new “*soft*” themes, such as happiness, well-being and social capital, are becoming central to the social sustainability debate, alongside more traditional “*hard*” concepts like basic needs, equity and employment.

While this broad conception of social sustainability can be applied across several sectors, the healthcare one presents its own peculiarities and needs to adopt this concept (Hussain et al., 2018). Specific healthcare social sustainability challenges, such as continuity of care, ethical resource allocation, regulatory complexity, and patient vulnerability, might be considered. While healthcare management literature offers a wide range of constructs, such as quality management—focused on process improvement and compliance with clinical standards—and patient safety—centred on error reduction and harm prevention—these frameworks primarily address organizational performance and risk mitigation, often without explicitly considering broader issues of social equity or stakeholder engagement (Evans et al., 2017; Vincent, 2010).

Moreover, the presence of multiple levels, from national policies to regional and local services delivery, as well as of several stakeholders makes the integration of social sustainability into healthcare governance practice challenging (Romiti et al., 2023; Aljaberi et al., 2018). To support healthcare organizations in implementing and assessing social sustainability, several scholars have framed this concept through the development of frameworks and definitions that use a multiple-layer perspective. More precisely, they suggested analyzing social sustainability by adopting a macro (system and government agencies), meso (organizations), and micro (technologies and telemedicine solutions) levels. The adoption of these multi-layer perspectives ensures the impact of social sustainability within the whole care ecosystem, ranging from patients, professionals, organizations, and government agencies (Tseng et al., 2020).

Despite the relevance of these studies, recent scholars have questioned such frameworks for assessing community impact without engaging the community's own perspective (Staniskiene et al., 2018). To address this gap, this paper adopts the Service Logic (SL) perspective as the missing theoretical backbone for exploring healthcare services' design taking into account different dimensions and perspectives (Saviano et al., 2025; Polese et al., 2018). Thus, assuming that service design must explicitly account for users' basic needs and equity concerns (Landorf, 2011), SL allows that value is dynamically co-created with users. Furthermore, by expanding the definition of “user” to include all the stakeholders, SL ensures that social sustainability adds tangible value throughout service design and implementation (Vargo & Lusch, 2008). In healthcare, SL is particularly fitting, as it gives voice to external users or internal professionals, each playing an integral role in the service pathway, encompassing also different groups such as professional associations and scientific societies and integrating macro, meso, and micro perspectives (Lusch & Nambisan, 2015).

To avoid inconsistencies between what organizations consider a social priority and what the community prioritizes as relevant, it is important to involve the community in framing social sustainability (Trischler et al., 2020; Chou et al, 2015). Otherwise, the risk is to provide services that do not really fit with the community's expectations and needs. Whilst several scholars have started pinpointing the importance of involving users in framing and assessing sustainability, studies that contribute in this direction are rather scarce with some exceptions (Talwar et al., 2011). Staniskiene et al. (2018) involved employees in assessing social sustainability

revealing health and safety dimensions much more relevant than equal opportunities, in contrast with the organization's perspective.

Starting from these premises, the study is positioned at the intersection between service management, and in particular healthcare management, and sustainability management, aiming to understand the main dimensions when assessing and evaluating social sustainability. The aim of this research is to develop a validated multidimensional framework for assessing social sustainability in healthcare by adopting a multi-stakeholder perspective, in line with the SL (Grönroos, 2011), and aiming to support decision-making processes across different levels, embedding all stakeholders as active co-creators of value and defining priorities in a sector where practical application of tools and solutions can markedly improve performance.

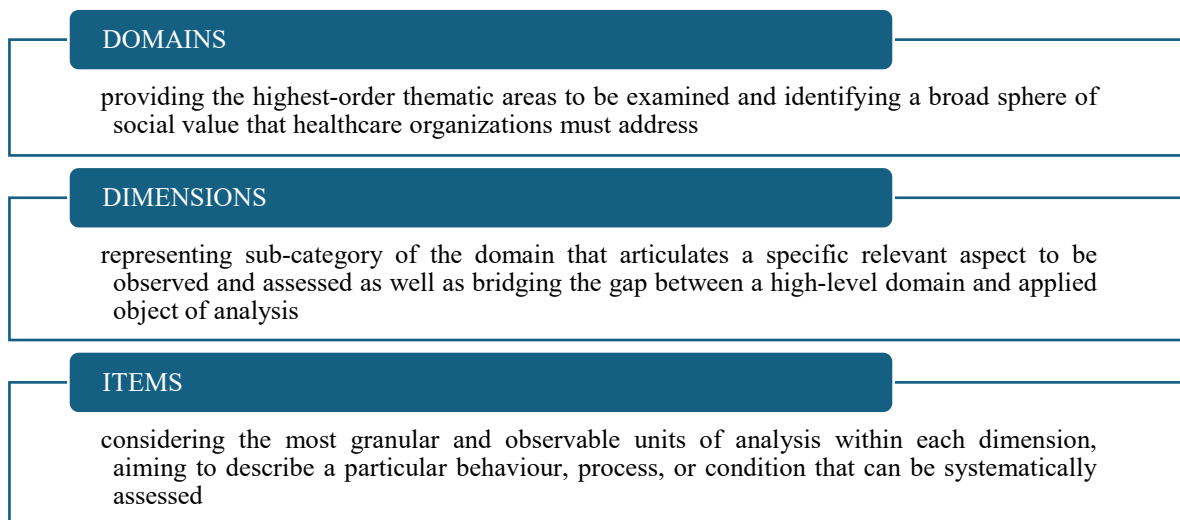
To achieve this objective, the research questions are defined as follows:

- *What are the key dimensions and sub-dimensions for assessing social sustainability in healthcare across macro (system), meso (healthcare organization), and micro (specific technology/process or telemedicine solutions) levels?*
- *Which are the most relevant dimensions for assessing the social sustainability according to professionals' and patients' perspectives?*

Methodology and research design

The methodological process begins with a scoping literature review (Levac et al., 2010) aimed at identifying existing gaps in the evaluation of social sustainability, particularly in relation to the integration of the patient perspective. Leveraging on SL and the multidimensional approach proposed by the HTA models, a multi-level structure is adopted to determine the framework, translating the scientific evidence derived from the literature into concrete evaluative elements. The framework is constituted of the following elements: i) domains, ii) dimensions and iii) items, as shown in Figure 1.

Figure 1: Structure of the proposed multi-layers' framework



To test the comprehensive framework emerging from the scoping review, a Nominal Group Technique (NGT) was adopted. This structured qualitative method was chosen because it facilitates consensus-building among diverse groups of stakeholders, ensuring that the framework reflects both users' and professionals' perspectives in framing social sustainability (Delbeq et al., 1975). This validation phase was conducted involving professionals and volunteers, who were enrolled by sending an email invitation. The target respondents were selected according to some defined criteria: *i)* professionals working in an European healthcare organisation, *ii)* professionals covering the following professional roles: physicians, pharmacists, clinical or management engineers, HTA coordinators, professionals directly involved in the procurement processes, *iii)* volunteers

third-sector organizations delivering health and care assistance to capture the dimensions of social sustainability from their perspective, in alignment with SL.

The questionnaire was organized into two main sections. The first section collects respondents' characteristics and their knowledge about the concept of social sustainability. The second section asks respondents to prioritize domains, dimensions, and sub-dimensions of the comprehensive framework emerging from the scoping review based on their perceptions.

Preliminary results and discussions

The scoping literature review confirms that social sustainability in healthcare is a multidimensional construct involving aspects of accessibility, workforce well-being, governance, patient-centeredness, organizational culture, safety, and technological innovation.

Preliminary analysis of the available scientific evidence confirms the fragmentation of existing definitions (Torkayesh et al., 2021), with some focusing only on infrastructure and buildings (Capolongo et al., 2016; de Fátima Castro et al., 2017), and only a few integrating comprehensive sustainability frameworks at a systemic level (Wątrobski et al., 2023). This fragmentation leads to an uneven assessment of social sustainability, often overlooking critical interdependencies between policies (macro), organizational processes (meso), and patient outcomes (micro). For instance, accessibility is widely recognized as a fundamental component, yet it is primarily conceptualized in terms of service access (Khan et al., 2018) and financial investment in public health (Khosravi, 2019). While these macro-level aspects provide a systemic perspective, there is a significant gap in assessing how accessibility is perceived by the organizational level and by the patients.

At the organizational level, healthcare institutions serve as intermediaries between policy and patient outcomes, making their role central to social sustainability. Workforce well-being is a key determinant, with studies emphasizing the availability of human resources (Wątrobski et al., 2023), career programs, employee safety, and training opportunities (Erjaee et al., 2022; Ullah et al., 2021). However, existing evaluation frameworks often focus on economic efficiency and performance indicators, neglecting aspects such as mental health, job satisfaction, and professional development.

Focusing on the micro level, technological innovation is increasingly positioned as an enabler of social sustainability, particularly through telemedicine, AI-driven diagnostics, and digital health. While these advancements can improve healthcare accessibility, existing models fail to consider how technological innovations impact social sustainability from a patient-centered perspective (Knagg et al., 2024). The limited integration of patient experiences reinforces the need for a framework that acknowledges value co-creation between patients, healthcare professionals, and institutions (Davey & Grönroos, 2019).

To validate the framework, 13 responses, out of 50, from healthcare professionals and 5 from volunteers, out of 65, were collected, as displayed in Table 1.

Table 1: Characteristics of respondents and their knowledge about social sustainability

Respondents' roles		Level of adoption of social sustainability	18
Professionals:	13	Have deal with social sustainability	8
Clinician	3	Have never deal with social sustainability	10
Biomedical engineering	2	Barriers to social sustainability's adoption	
Pharmacist	3	Limited awareness and understanding	10
Healthcare consultant	2	Difficulty in assessing and measuring	9
Other	3	Resistance to change	8
Volunteers:	5	Necessity to involve several stakeholders	7
		Limited financial resources	6

Considering the perceptions of professionals and volunteers and related scores declared, the results of validation phase show a specific level of agreement in relation to each component of the framework: domains, dimension, and sub-dimensions, as presented in Table 2.

While professionals and volunteers tended to agree on the most important and lest important components, they revealed several differences in scoring the other components. For example, professionals recognized the economic aspects as the third most important domains in assessing and framing social sustainability, while volunteers preferred it to social aspects and safety. This divergence of views emerged also in dimensions and sub-dimensions. While professionals prioritized components related to the organization (e.g. processes, organizational culture, welcome environment), the community prioritized components that ensure their involvement and well-being (e.g. experiences and outcomes, engagement, patient centeredness). Interestingly, professionals valued more patient safety and social cohesion than the community, while the community valued more employee empowerment and technology advancements than professionals.

Table 2: Average priority scores considering the overall respondents, professionals, and community

	OVERALL			PROFESSIONALS		COMMUNITY	
	Average priority score*	Standard error	Level of agreement	Average priority score*	Standard error	Average priority score*	Standard error
Domains							
1. Equity	2.28	0.3	94%	2.15	0.32	2.6	0.75
2. Organization	2.5	0.37		2.62	0.47	2.2	0.58
3. Economic aspects	3.5	0.35		3.23	0.41	4.2	0.66
4. Safety	3.83	0.35		3.92	0.42	3.6	0.68
5. Social and ethical aspects	3.94	0.39		4.15	0.42	3.4	0.93
6. Legal aspects	4.94	0.34		4.92	0.42	5	0.63
7. Environmental aspects**	6.05	0.37		6.38	0.39	4.75	0.75
Dimensions							
1. Accessibility	3.11	0.52	100%	3.23	0.59	2.8	1.2
2. Organisational policies and strategy	3.67	0.5		3.31	0.63	4.6	0.68
3. Organisational culture	4.56	0.63		4.92	0.75	3.6	1.17
4. Human resource management	4.78	0.51		5	0.65	4.2	0.8
5. Processes/activities	4.94	0.64		4.62	0.8	5.8	0.97
6. Safety and security	6.67	0.72		6.15	0.89	8	1.05
7. Engagement of all the stakeholders	7	0.75		7.69	0.87	5.2	1.24
8. Investments/Disinvestments	7.22	0.59		6.69	0.69	8.6	0.98
9. Experience and outcomes	7.22	0.75		8	0.73	5.2	1.77
10. Infrastructure	7.44	0.47		7.62	0.53	7	1.05

11. Laws and policies	9.39	0.71		8.77	0.94	11	0
Items							
1. Service access	1.61	0.22	100%	1.54	0.27	1.8	0.37
2. Ease of taking in charge	4.5	1.01		3.85	0.95	6.2	2.75
3. Pathway definition	5.33	0.66		5.23	0.82	5.6	1.21
4. Technological advancements (eg. AI)	9.44	2.16		14.62	3.12	14.4	5.99
5. Promoting digital services/telemedicine	10.94	2		15.69	3.46	16	6.11
6. Training and development	14.11	2.31		10.85	2.85	5.8	1.88
7. No discrimination among employees	14.56	2.7		12.77	2.53	6.2	1.88
8. Social responsibility	15.11	1.57		17.23	3.53	15.2	5.56
9. Working equal opportunities	15.78	2.92		19.62	3.91	11.8	2.03
10. Social cohesion	15.89	1.57		15.85	3.01	9.6	1.96
11. Community livability	15.89	1.43		20.62	3.13	19.4	5.09
12. Career programmes	16.67	2.9		18.23	2.47	14	3.63
13. Leadership and employee motivation	17.06	2.04		21.15	3.06	16.8	2.84
14. Adequate salaries	17.44	2.96		14.46	1.73	19.6	3.11
15. Patient safety	19.56	3.26		14.85	1.55	18.6	3.2
16. Welcome environment	19.83	1.96		21.54	2.41	22	3.11
17. Employees' empowerment	19.94	2.35		13.15	1.84	20.2	1.46
18. Workplace creativity	20.28	2.59		22.69	1.6	19.2	1.98
19. Comfort	20.33	1.92		22.15	2.14	24.2	2.58
20. Patient centeredness	21.61	4.26		21.69	2.62	22.8	3.38
21. Cooperation with government initiatives	21.67	1.9		23.62	1.61	24.6	2.93
22. Corporate responsibility	21.72	1.31		26.15	2.73	26.8	2.63
23. Hospital's strategy	22	2.07		23.62	1.92	22.4	2.4
24. Accountability and public value	22.72	1.68		19.77	2.34	21.8	3.6
25. Opportunity for innovation	23.28	1.51		18.31	2.26	23.8	3.68
26. Internal tasks and processes	23.89	1.37		25.69	1.69	25	3.79
27. Space flexibility	24.56	1.94		21.85	2.08	31.6	2.56
28. Visual link with surrounding landscape	25.5	1.55		24.54	2.14	33	2.49
29. Quality awards	26.33	2.06		28	2.09	34.2	2.48
30. Space adaptability	26.89	1.89		25.62	2.27	31.4	2.4
31. Availability/accessibility to social areas	27.22	1.84		33.62	0.98	28.2	3.12

32. Communication and information availability	27.39	3.49	33.46	0.89	32.4	2.87
33. Quality of life and well-being	27.5	3.02	19.92	4	18.6	6.12
34. Layout and orientation	29.72	1.76	30.69	2.57	37.8	1.66
35. Satisfaction	29.83	3.02	34.62	2.29	36	1.82
36. Patients' association involvement	29.89	3.05	28.23	3.59	25.6	6.13
37. Patient experience	30.67	2.88	28.23	3.72	34	5.09
38. Safety condition for employees	32.11	1.22	31.77	3.11	27.8	7
39. Financial contribution/ expenses	32.67	2.04	32.15	3.29	24	6.77
40. Risk protection	33.17	0.98	22.77	5.02	18.6	8.8
41. Investment in human resources	35	1.7	29.54	3.72	21.8	8.24
42. Auditing	38.94	1.7	38.92	1.75	42.6	0.4
43. Adherence to laws and norm	39.94	1.31	41.69	1.08	41	2.26
44. Accountability - Public Function	41.5	0.96	39.46	1.91	37.6	3.92
* Lower average scores correspond to higher priority, as experts assigned 1 to the highest-priority element and increasing values to lower-priority elements						
** element added due to the validation process						

Conclusions and contributions

This research contributes to the literature by expanding the application of SL to the underexplored domain of social sustainability within the healthcare setting, shifting the focus from more traditional performance metrics to value co-creation (Best et al., 2019). The proposed framework integrates macro, meso, and micro perspectives, emphasizing equity as a core component of sustainability assessment and integrating different perspectives.

From a theoretical perspective, this research underscores the need to rethink current definitions of sustainability, and the tools used to assess it—especially the social pillar—through a multi-stakeholder lens. Because professionals and community members are the ultimate beneficiaries of sustainability initiatives, both groups must be involved. The findings also highlight the importance of addressing macro, meso, and micro components simultaneously: the effects of social sustainability operate across all three levels and are mutually reinforcing. This study provides a first attempt of a comprehensive multi-layer's framework of social sustainability, co-created and validated engaging both professionals and the community.

From a practical standpoint, the study advances methodological approaches to evaluating social sustainability by adopting a qualitative consensus-building technique (NGT), offering a structured yet flexible tool that can be adopted to assess social sustainability while guiding the development of socially sustainable-oriented practices and initiatives not only at the policy and macro level but effectively implementing them at the organizational and patient levels due to adaptability and stakeholder involvement. Moreover, the study ensures adaptability across different healthcare environments, from public hospitals to private clinics, and across various technological innovations, by offering a replicable decision-support tool.

Future research should move our theoretical framework into practice, for instance by using the Analytic Hierarchy Process (AHP) to evaluate and prioritize interventions and innovations from the social sustainability perspective. This study also opens avenues for examining how social, environmental, and economic sustainability interact: some evidence suggests social initiatives can enable environmental gains and economic

performance (Messman et al., 2024; Leksono et al., 2018), yet potential trade-offs may arise when resources are constrained.

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