

A Health Care Value Framework for Physical Therapy Primary Health Care Organizations

Rutger Friso IJntema, MBA; Di-Janne Barten, PhD; Hans B. Duits, PhD; Brian V. Tjemkes, PhD; Cindy Veenhof, PhD

Background and Objective: To develop a health care value framework for physical therapy primary health care organizations including a definition. **Method:** A scoping review was performed. First, relevant studies were identified in 4 databases (n = 74). Independent reviewers selected eligible studies. Numerical and thematic analyses were performed to draft a preliminary framework including a definition. Next, the feasibility of the framework and definition was explored by physical therapy primary health care organization experts. **Results:** Numerical and thematic data on health care quality and context-specific performance resulted in a health care value framework for physical therapy primary health care organizations—including a definition of health care value, namely “to continuously attain physical therapy primary health care organization-centered outcomes in coherence with patient- and stakeholder-centered outcomes, leveraged by an organization’s capacity for change.” **Conclusion:** Prior literature mainly discussed health care quality and context-specific performance for primary health care organizations separately. The current study met the need for a value-based framework, feasible for physical therapy primary health care organizations, which are for a large part micro or small. It also solves the omissions of incoherent literature and existing frameworks on continuous health care quality and context-specific performance. Future research is recommended on longitudinal exploration of the HV (health care value) framework.

Key words: finance/economics, organizational change, physical therapy, primary health care organization, quality health care, value-based health care

Physical therapy primary health care organizations (PHOs) are, like other PHOs, challenged to continuously match the needs of patients and society in a changing health care environment.^{1,2} PHOs offer high-quality and efficient care in terms of money and time, expressed in overall health care quality aims such as being equitable, safe, timely, effective, efficient, and patient-centered.³ Concurrently, physical therapy PHOs

fulfill local context-specific needs like the support of the individual patient, efficient and effective collaboration with staff and professional and voluntary stakeholders, and positive financial results of the organization itself. To achieve desired outcomes of health care quality and context-specific performance, and deal with the challenge to continuously match needs, physical therapy PHOs need to deploy change.^{4,5} This diverse set of conflating components can be viewed as health care value (HV) for physical therapy PHOs.³

In literature, widely adopted total quality management frameworks like the European Foundation of Quality Management and Malcolm Baldrige have already been successfully applied to HV-based approaches. Those frameworks stimulate self-evaluation and focus integrally on enablers, staff, stakeholder, and social outcomes, and also encourage data analysis, indicating challenges, learning, creativity, and innovation.⁴ Markedly, the frameworks were originally developed outside the health care context, by large organizations (>500 employees), which have resources for quality management and tend to be bureaucratic, hierarchical, and managerial. However, based on numbers gathered in the United States and Europe, physical therapy PHOs are mainly organized as micro (0-9 employees) and small (10-99 employees) organizations, which are outcome-oriented, have limited resources, personalized management, and flexible, informal structures and strategies.⁴⁻¹¹ Furthermore, the number of physical therapists employed in private practices is increasing as shown by data derived in Canada, Australia, and Denmark. About 35% to 53% of the physical therapists work in private practice.¹²⁻¹⁴

Author Affiliations: Research Group Financial-Economic Innovation, HU University of Applied Sciences Utrecht, Utrecht, the Netherlands (Messrs. IJntema and Duits); Department of Rehabilitation, Physical Therapy Science and Sports, Brain, Center Rudolf Magnus, Utrecht University, University Medical Center Utrecht, Utrecht, the Netherlands (Mss. Barten and Veenhof); and Department of Management and Organization Studies, VU University Amsterdam, Amsterdam, the Netherlands (Mr. Tjemkes).

Correspondence: Rutger Friso IJntema, MBA, HU University of Applied Sciences Utrecht, Heidelberglaan 15, 3584 CS, Utrecht, the Netherlands (rutger.ijntema@hu.nl).

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A preliminary search by the authors of the current study suggests that, within the literature, nearly no papers coherently address HV related to physical therapy PHOs specifically, nor to PHOs in general. It is questionable to what extent the mentioned frameworks are feasible to match the contextual needs of PHOs. Concerning the feasibility of the frameworks for micro or small organizations, such as physical therapy PHOs, 2 areas are mentioned specifically: (1) a lack of coherent context-specific outcome metrics for quantitative evaluation^{4,7,15} and (2) the bureaucratic character and complexity, hampering an organization's need for change in a dynamic environment.^{4,5}

Hence, physical therapy PHOs may not know how to define HV for PHOs and which feasible HV-based framework to adopt. To solve the omissions of incoherent literature and existing frameworks on continuous health care quality and context-specific performance, the purpose of the current study is to develop an HV framework for physical therapy PHOs including a definition of HV for physical therapy PHOs. This potentially reconciles outcomes and additionally applies to an organization's need for change to deal with challenges to continuously match needs and to remain viable over time. The research question for this study is: "What is known in the literature on HV for physical therapy PHOs, incorporating both health care quality and context-specific performance?"

METHODS

Because literature mainly comprises separated streams, a scoping review consisting of 6 phases was performed.^{16,17} After identifying the research question (phase 1), relevant studies relatable to PHOs were identified in PubMed, SPORTDiscus, Business Source Elite, and Academic Search Premier databases (phase 2). Because a search for physical therapy PHOs specifically generated few relevant results, the strategy was to search for PHOs in general. Two search strategies were performed separately based on 2 related but mainly separated areas to primary care: quality and performance. A "year of publication \geq 2006" filter was applied because, in 2006, the Institute of Medicine introduced an influential framework to translate performance and accountability into measures of health care quality.³ During phase 3, articles were reviewed against selection criteria, which comprised: mature primary health care context; language; relatable to PHOs (including physical therapy PHOs); and literature type. Detailed information about the supplemental digital content search strategy is available at <http://links.lww.com/QMH/A46>. Included studies were analyzed for relevant aspects of HV for physical therapy PHOs by directed content analysis¹⁸; subsequently, a preliminary HV framework for physical therapy PHOs, including a definition of HV for physical therapy PHOs, was collated and reported (phase 4 and 5). Finally, 2 groups of Dutch physical therapy PHO experts were consulted over 2.5 hours. At an early stage, 10 experts attended to build a preliminary framework and build consensus. At a later stage another 10 experts

attended to reduce bias of being familiar with the framework, and to ensure the feasibility of the HV framework and definition for physical therapy PHOs (phase 6).

RESULTS

The results of phases 1 to 6 of the previously outlined method are subsequently described.

Phase 1: Identifying the research question

"What is known in the literature on HV for physical therapy PHOs, incorporating both health care quality and context-specific performance?"

Phase 2: Identifying relevant studies

Based on the proposed research question, 2 separate search strings resulted in 1334 unique articles regarding the "quality" domain and 909 unique articles regarding the "performance" domain (Figure 1).

Phase 3: Study selection

After reviewing the identified articles against the mentioned selection criteria, 37 publications for quality and 39 publications for performance were eligible for inclusion. After removing duplicates, 74 publications were included in this scoping review concerning HV for physical therapy PHOs. Throughout the selection, quality and performance related to primary care showed limited overlap (Figure 1).

Phase 4: Charting the data

The result of a basic numerical analysis and a thematic analysis is shown in Table 1. Analysis of study designs showed that quantitative studies ($n = 90$) outnumber conceptual ($n = 58$) and qualitative ($n = 17$) studies. Numbers concerning country/region revealed that North America ($n = 83$) exceeds Europe ($n = 75$) and Australia ($n = 34$) in publication volume. Most attention was given to the themes of this study during the years 2014-2017. PHO setting appeared to be diverse. Content analysis showed that various characteristics were discussed in the selected publications. Mainly discussed themes were financial performance ($n = 48$), efficiency ($n = 41$), patient-centeredness ($n = 37$), stakeholder perspective ($n = 31$), and effectiveness ($n = 22$). Least discussed descriptions were timely ($n = 10$), equitable ($n = 7$) and safe ($n = 5$). Cross-sectional studies ($n = 33$) outnumbered longitudinal studies ($n = 7$) (not shown in Table 1).

Phase 5: Collating, summarizing, and reporting results and consultation of experts

Definition of HV for physical therapy PHOs

Based on the thematic analysis and consultation of experts, a definition of HV for physical therapy PHOs could be presented: HV for physical therapy PHOs is to continuously attain physical therapy PHO-centered outcomes in coherence with patient- and stakeholder-centered outcomes, leveraged by an organization's capacity for change. This definition presumes a coherent interaction between 3 types of elementary

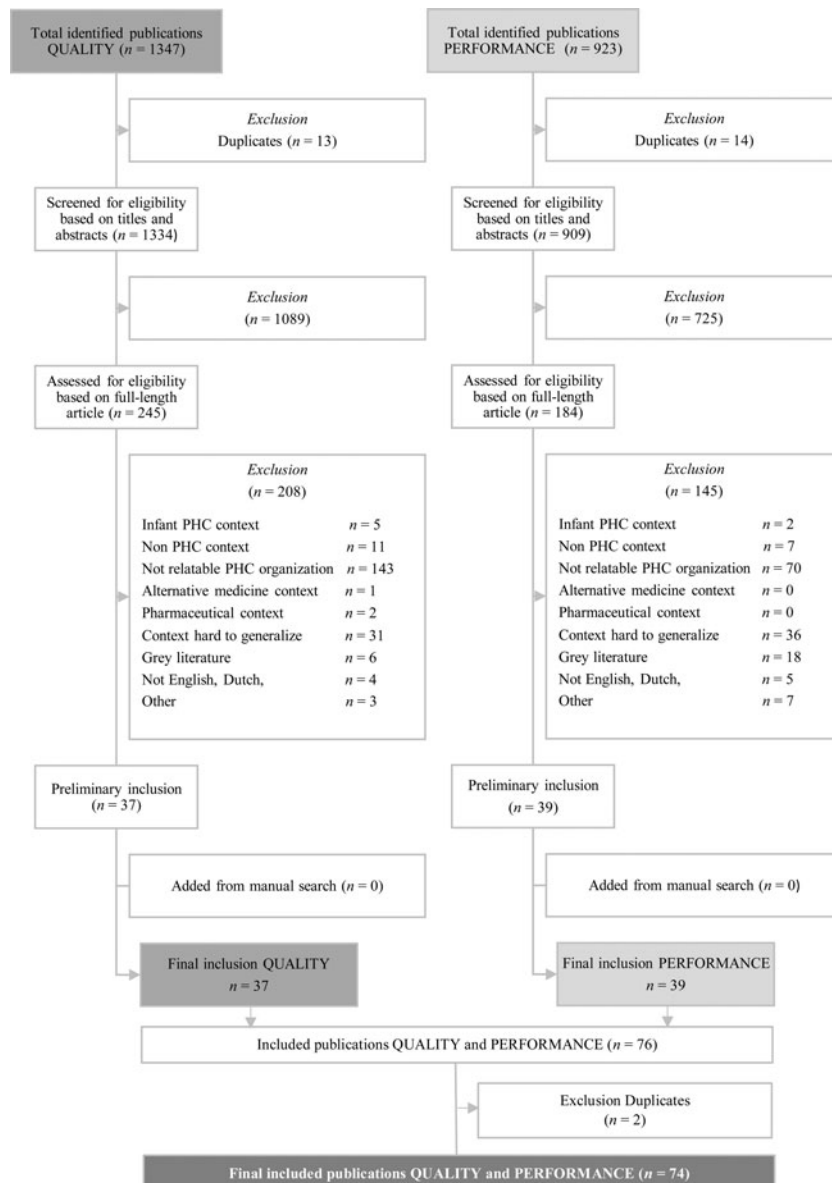


Figure 1. Study selection for health care value for physical therapy primary health care organizations.

units: outcome dimensions, organization’s capacity for change, and organizational challenges. Although the elements show major similarities with existing value-based frameworks, the elementary units reconcile health care quality and context-specific performance related to PHOs (including physical therapy PHOs) mentioned in primary care literature or by physical therapy PHO experts. The elementary units are explained later.

Outcome dimensions

Physical therapy PHO-centered outcomes. Physical therapy PHO-centered outcomes are captured by overall organization-level outcomes of HV-creating services and products. First, overall technical quality is based on the overall technical accuracy, like medical diagnoses, standards, guidelines, protocols, and accreditation, mostly within the purview of professionals and health care organizations.^{32,46} Second, overall perceived

quality is how health care is delivered by the organization to the patients, as perceived by the patients.^{32,46,78} Third, financial outcome is expressed in organization revenue, cost, and profit.^{34,88}

Patient-centered outcomes. Patient-centered outcomes capture results of HV-creating services and products as perceived by the individual, offered by PHOs over time. Literature and consulted experts indicate that there are 4 outcome types: first, patient-related outcome¹ pertains to the individually perceived clinical outcome of specific diseases in connection with evidence-based guidelines. Second, patient-related experience⁷⁵ is related to the patient’s perceived satisfaction with interventions, service, the physical environment where care is provided, and intangible work⁵⁵. Third, patient-empowerment outcome measures the patient’s adaptation and

Table 1. Numerical Analysis Health Care Value for Physical Therapy Primary Health Care Organizations

Themes/Number of Publications	Publication Characteristics (n = 74)																			
	Design					Region			Year		Setting									
	Conceptual	Quantitative	Qualitative	Mixed Method	Other	North America	Europe	Australia	Other	2006-2009	2010-2013	2014-2017	2018-2019	Primary Health Care Center	Primary Health Care System	Primary Health Care Hospital	Accountable Care Organization	Patient-Centered Medical Home	Other	
Equitable ^{19,25}	7	3	2	1	0	1	2	2	2	1	3	0	0	0	3	1	0	0	0	3
Safe ^{19,20,26-28}	5	1	2	0	2	0	2	0	2	1	2	0	0	1	3	0	0	0	0	1
Timely ^{23,28-35}	10	1	4	1	2	3	4	1	2	2	2	3	0	4	4	0	0	0	0	2
Effective ^{1,22,25,28-31,34-47,48}	22	7	6	1	2	6	10	4	2	6	4	9	3	4	7	1	1	1	1	8
Efficient ^{1,19,22-27,29-36,38-41,43-45,47,49-65}	41	10	15	3	6	7	15	14	5	7	15	8	3	13	12	4	1	1	1	10
Patient-centered ^{1,19,21,22,24,28,30,32,34,35,37,38,40-42,44,45,52,54,58,62,63,66-80}	37	8	16	1	6	6	15	13	5	4	8	9	2	8	13	4	2	2	2	8
Health care quality general ^{1,19,23-25,32,35,42,44,45,47,48,56,62,63,72}	16	6	5	2	1	2	4	7	3	2	5	2	0	2	5	2	0	0	0	7
Health care value general ^{1,20,22,25,28,41,44,45,47,49,62,65,73,74,81,82}	16	5	7	1	2	1	4	5	2	5	4	3	0	3	4	4	0	0	0	5
Stakeholder perspective ^{1,19,22-25,27,30,32,33,36,37,41,43-45,48,50,54,56,59,60,63,67,70-74,83,84}	31	7	8	5	5	6	7	12	8	4	8	6	2	7	13	3	1	0	0	7
Financial performance ^{1,19-24,26,28,29,34,35,37-41,43,44,46-48,52-54,58,60-62,64,65,68-73,75,79,80,82,84-91}	48	10	25	2	5	6	21	14	4	9	9	15	3	10	15	8	4	1	1	10
Total	233	58	90	17	32	37	83	75	34	41	62	50	13	52	79	27	9	5	5	61

self-management with a combination of perceived clinical outcomes, related to the individual patient context.²² Fourth, a patient’s willingness to pay⁷⁴ is linked to the individual’s perception of quality-payment combinations and the value of services provided²⁴.

Stakeholder-centered outcomes. Stakeholder-centered outcomes are outcomes valued by stakeholders—such as individuals, groups, or organizations—that are relevant to PHOs. First, patient representatives value outcomes such as health improvement, service aspects related to the availability of appointments, the behavior of staff, and direct costs of care.⁵⁷ These representatives do not necessarily receive care but rather speak for patient groups. Second, several internal stakeholders of PHOs value these outcomes. For example, managers focus on efficiency, resource use, profitability,³¹ staff satisfaction,³² and change management.⁸⁴ Clinicians give importance to clinical results and training standards.^{64,84} Furthermore, internal administrators¹ play an important role in keeping patient and financial records. Third, external stakeholders have an interest in PHOs as well. For example, politicians and purchasers of care are concerned with the health care system^{57,74} and payment for predictable outcomes¹⁹. Also, voluntary agencies, informal caregivers, and external health care providers play their role as well.³⁰

Organization’s capacity for change

An organization’s capacity for change refers to PHOs’ internal capability to leverage HV. This capacity enhances PHOs to continuously adapt to and influence changing outcomes so that organization-, patient-, and stakeholder-centered outcomes are continuously attained. So too, varying organizational challenges can be dealt with by continuous alignment of the organization.^{22,24,30,46,58,78,84}

Organizational challenges

To attain HV for physical therapy PHOs, organizations encounter organizational outcome interdependency challenges. First, in relation to PHO-centered and patient-centered outcomes, organizations are challenged to apply standardization to reduce variation such that processes are still sensitive to a patient’s needs²¹. Second, balancing PHO-centered and stakeholder-centered outcomes poses a challenge because organization and stakeholder perspectives may differ¹. Last, to providing care continuity based on various appointments and health care settings over time, rather than care related to a specific time and setting, is a challenge for balancing stakeholder-centered and patient-centered outcomes. For example, organizations are challenged to share real-time patient data with the patient, the patient’s context, and various stakeholders.^{22,30,84}

The elementary units are graphically summarized in an HV framework for physical therapy PHOs (Figure 2).

Phase 6: Consultation of experts: Feasibility of the HV framework for physical therapy PHOs

To get insight into the feasibility of the HV framework for physical therapy PHOs, it was explored through consultation of Dutch physical therapy PHO experts: physical therapy private practice owners, managers, and directors. At an early stage, 10 experts attended to building a preliminary framework with the purpose of consensus building. At a later stage a new group of experts discussed, based on their experience, a practice-based case of blended physical therapy (from face-to-face to online physical therapy), to which the framework was applied. This second round was done for feasibility testing purposes. This revealed 3 key learning points: First, the experts appreciated the cohesion between outcomes, organization’s capacity for change, and organizational challenges in the HV framework. For

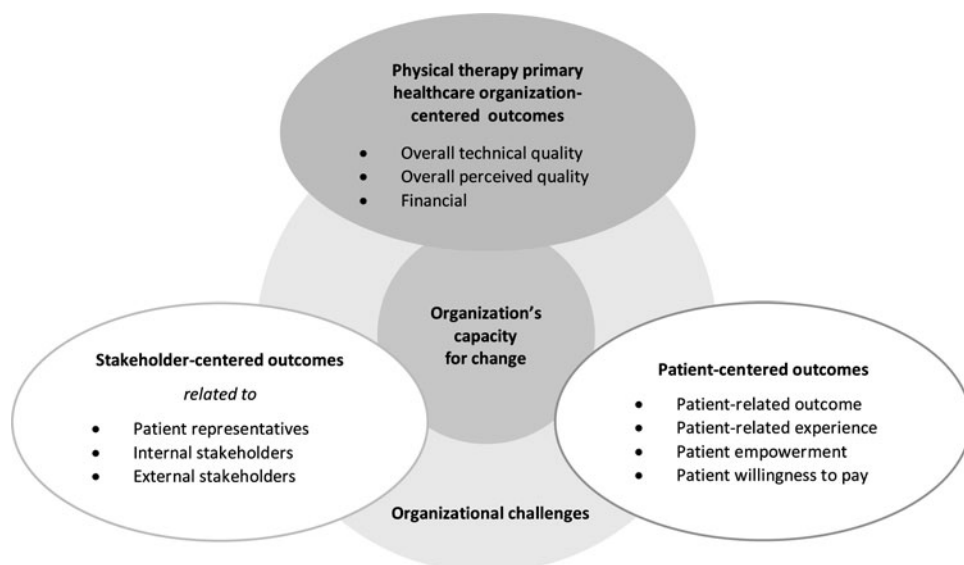


Figure 2. Health care value framework for physical therapy primary health care organizations.

example, HV outcomes appeared hard to attain if one or more of the elementary units was under-resourced, like innovation budget (outcome), staff competence (capacity for change), or stakeholder alignment (challenge) (Table 2). Second, the experts indicated the framework was feasible for their unique physical therapy PHO and confirmed that the 3 elementary units reflected their daily practice. It helped them to keep the focus on all elementary units. Third, experts emphasized the importance of a physical therapy PHO's capacity for change while aiming for HV outcomes. Table 2 shows the elementary units, related outcomes, and elaborated examples from the current review and expert illustrations.

DISCUSSION AND CONCLUSION

The current study succeeded in providing an HV framework for physical therapy PHOs including a definition, namely, "to continuously attain physical therapy PHO-centered outcomes in coherence with patient- and stakeholder-centered outcomes, leveraged by an organization's capacity for change." The framework accounts for both health care quality outcomes and performance outcomes relevant to the physical therapy PHO-specific context. The framework articulates outcome dimensions, organizational challenges, and organizational capacity for change to remain dynamic and viable over time. In addition, based on one example,

Table 2. Health Care Value for Physical Therapy Primary Health Care Organizations: Blended Physical Therapy

Elementary Unit	Outcome	Literature Review Example	Expert Illustrations
Physical therapy PHO-centered outcomes	Overall technical quality	Medical diagnoses, standards, guidelines, protocols, and accreditation	From overall high standard face-to-face to online physical therapy treatment
	Overall perceived quality	How health care is delivered by the organization, perceived by the patients	From overall high standard face-to-face to online hospitality
	Financial	Organization revenue, cost, and profit	From low to high innovation budget
Patient-centered outcomes	Patient-related outcome	Individually perceived clinical outcome based on evidence-based guidelines	From personalized high standard face-to-face to personalized online physical therapy
	Patient-related experience	Individual patient satisfaction with interventions, service, care environment	High standard hospitality for the individual physical therapy patient
	Patient empowerment	Patient's self-management linking with the patient context	Access to blended physical therapy
	Patient willingness to pay	The individual's perception of the value of services provided	Acceptable payment for value offered by physical therapy PHO
Stakeholder-centered outcomes	Patient representatives	Representatives do not necessarily receive care but rather speak for patient groups	High acceptance of online physical therapy services
	Internal stakeholders	Several internal stakeholders of PHOs itself value outcome	Satisfied patient representatives High manager, physical therapist, and administration staff satisfaction
	External stakeholders	Purchasers of care concerned with payment. Informal caregivers	From simple ICT to an affordable high standard ICT provider
Organization's capacity for change	...	Continuous alignment of the organization	De-implementation of protocols Implementation of new protocols Build new staff competences Build new ICT systems
Organizational challenges	...	Balancing PHO-centered and stakeholder-centered outcomes	Collaboration with ICT experts Patient representatives' involvement Internal/external stakeholders' alignment New payment models Create budget: disinvestment in face-to-face contact

the HV framework for PHOs seems feasible for physical therapy PHOs.

Contributions

HV for physical therapy PHOs was discussed in prior studies; however, narrow views were adopted ignoring PHO context-specific factors that confound HV achievement.^{1,4-6,10,61} This study confirms that health care quality and context-specific performance related to physical therapy PHOs specifically, and to PHOs in general, was mainly discussed incoherently in the literature (Figure 1). Yet, this study has a unique point because it reconciles the separated literature to a feasible HV framework for physical therapy PHOs including a definition. The study integrated prior work with its focus on organization-centered outcomes along with patient- and stakeholder-centered outcomes. Therewith, it creates a focus on physical therapy PHO context-specific performance outcomes, which supports physical therapy PHOs to indicate and systematically perform measurable HV outcomes. Lastly, this article added a notable extension to the existing body of knowledge by focusing on an organization's capacity for change, which is a need for physical therapy PHOs. Although this could potentially be immoderate because numerical analysis indicates that longitudinal design is underexposed in the results of this study (Table 1), it may enable a physical therapy PHO to continuously determine HV for physical therapy PHOs. To do so, these organizations continually need to estimate their possibilities within their variable and specific context. In addition, the study may enable the physical therapy PHO to deal with challenges to remain viable and innovative over time in a feasible manner.

Strengths and limitations

This study entails some strengths. First, this study is conducted based on a generally adopted scoping review method including a highly sensitive search strategy. Also, physical therapy expert consultation, and a practice-based case in which the HV framework for physical therapy PHOs was explored, is included. Second, 2 separate search strategies are performed to test the overlap between quality and performance, related to primary care, throughout the study selection (Figure 1). Third, the HV framework for physical therapy PHOs reveals a unique perspective for physical therapy PHOs and may provide the groundwork for a shared language between a physical therapy PHO, internal and external stakeholders, and patients. Finally, the HV framework for physical therapy PHOs and the definition presented in this study are believed to be the first of their kind.

This study entails several limitations as well. First, instead of a systematic review, a scoping review cannot differentiate between results and interpretation of results, nor the level of evidence found in the literature. However, because the literature mainly comprises separated streams, systematic review was not possible. Second, differences in research contexts found in the literature, like country-specific issues, and PHO is-

suues that potentially might not apply to physical therapy PHOs, may have influenced the current framework and definition.

Implications

Although the HV framework for physical therapy PHOs was well accepted by the consulted physical therapy PHO experts, the framework needs further empirical testing in various PHO contexts. For the practice community, the framework can be used to experiment with a shared language between stakeholders. Policymakers could consider the framework as a bridge between (inter)national health care quality aims and physical therapy PHO context-specific performance outcomes. For the research community, the framework could be operationalized and tested as a whole or on its constituent parts. Future research based on longitudinal case studies is recommended to further empirically explore and potentially determine the feasibility of the framework in physical therapy PHO-specific contexts.

Concluding remark

Prior literature mainly discussed health care quality and context-specific performance for physical therapy PHOs separately. The current study met the need for a value-based framework, feasible for physical therapy PHOs, which are for a large part micro or small. It also solves the omissions of incoherent literature and existing frameworks on continuous health care quality and context-specific performance. Future research is recommended on longitudinal exploration of the HV framework for physical therapy PHOs in various PHO contexts.

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