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. 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. 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. This diverse set of conflating components can be viewed as health care value (HV) for physical therapy PHOs.

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. 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. 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.
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 ≥ 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 analysis\(^16\); 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) outnumbered 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
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. Second, overall perceived quality is how health care is delivered by the organization to the patients, as perceived by the patients. Third, financial outcome is expressed in organization revenue, cost, and profit.

**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 outcome pertains to the individually perceived clinical outcome of specific diseases in connection with evidence-based guidelines. Second, patient-related experience is related to the patient’s perceived satisfaction with interventions, service, the physical environment where care is provided, and intangible work. Third, patient-empowerment outcome measures the patient’s adaptation and
| 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 |
| 7 | 3 | 2 | 1 | 0 | 1 | 2 | 2 | 2 | 1 | 3 | 0 | 4 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 3 |
| 5 | 1 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 1 | 2 | 0 | 3 | 0 | 1 | 3 | 0 | 0 | 0 | 0 | 1 |
| 10 | 1 | 4 | 1 | 2 | 2 | 3 | 4 | 1 | 2 | 2 | 3 | 5 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 2 |
| 22 | 7 | 6 | 1 | 2 | 6 | 10 | 4 | 2 | 6 | 6 | 4 | 9 | 3 | 4 | 7 | 1 | 1 | 1 | 1 | 8 |

Table 1. Numerical Analysis Health Care Value for Physical Therapy Primary Health Care Organizations
self-management with a combination of perceived clinical outcomes, related to the individual patient context. Fourth, a patient’s willingness to pay is linked to the individual’s perception of quality-payment combinations and the value of services provided.

**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. 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, staff satisfaction, and change management. Clinicians give importance to clinical results and training standards. Furthermore, internal administrators 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 and payment for predictable outcomes. Also, voluntary agencies, informal caregivers, and external health care providers play their role as well.

**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.

**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 needs. Second, balancing PHO-centered and stakeholder-centered outcomes poses a challenge because organization and stakeholder perspectives may differ. 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.

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
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,

| 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 |
| | 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 |
| Organizational challenges | ... | Balancing PHO-centered and stakeholder-centered outcomes | Collaboration with ICT experts |

Abbreviations: ICT, information and communication technology; PHO, primary health care organization.
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. 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-...
11. United States Census Bureau. Businesses. Census.gov. https://www.census.gov/data/tables/2016/econ/susb/2016-susb-annual.html. Published December 18, 2018. Accessed December 9, 2019.

12. Health Workforce Database, Canadian Institute for Health Information. Physiotherapy data. https://www.chi.ca/sites/default/files/document/pt-2016-data-tables-en.web.xlsx. Accessed December 9, 2019.

13. Australian Government. Department of Health. Physiotherapy data. https://wdw.health.gov.au/publications.html. Published 2019. Accessed December 9, 2019.

14. Preestgaard J, Gard G, Glasdam S. Physiotherapy as a disciplinary institution in modern society—a Foucauldian perspective on physiotherapy in Danish private practice. Physiother Theory Pract. 2015;31(1):17-28.

15. Griffith JR. An organizational model for excellence in healthcare delivery: evidence from winners of the Baldrige Quality Award. J Healthc Manag. 2017;62(5):328-341.

16. Arksey H, O'Malley L. Scoping studies: towards a methodological framework. Int J Soc Res. 2005;8(1):19-32.

17. Levac D, Colquhoun H, O'Brien K. Scoping studies: advancing the methodology. Implement Sci. 2010;5(69):1-9.

18. Hsieh H-F, Shannon SE. Three Approaches to qualitative content analysis. Qual Health Res. 2005;9(15):1277-1286.

19. Booth BJ, Snowdon T, Harris MF, Tomlinis R. Safety and quality in primary care: the view from general practice. Aust J Prim Health. 2008;14(2):19-27.

20. Clement J. Value and nursing home profitability. Health Serv Manag Res. 2016;29(3):62-69.

21. Ferrand YB, Siemens J, Weathers D. Patient satisfaction with healthcare services: a critical review. Qual Manag J. 2016;23(4):6-22.

22. Heath I, Rubinstein A, Stange KC, Van Driel ML. Quality in primary care: a multidimensional approach to complexity. BMJ. 2005;331(7570):911-913.

23. Papp R, Banal E. Perceptions of quality in primary health care: perspectives of patients and professionals based on focus group discussions. BMC Fam Pract. 2014;15(1):2-23.

24. Pekola P, Linnosmaa I, Mikkola H. An empirical study on the association between financial risk and service quality in physiotherapy. Nord J Bus. 2017;66(2):107-120.

25. Sibthorpe B, Gardner K. A conceptual framework for performance assessment in primary health care. Aust J Prim Health. 2007;13(2):96-103.

26. Angermeier I, Dunford BB, Boss AD, Boss RW. The Impact of participatory management perceptions on customer service, medical errors, burnout, and turnover intentions. J Healthc Manag. 2008;54(2):127-141.

27. Crossland L, Upham SJ, Janamian T, Siskind V, Sheenan M, Hepworth J. Population and primary health-care team characteristics explain the quality of the service. Can Med Assoc J. 2013;185(12):E590-E596.

28. Hendricks RJP, Drewes HW, Spreeruenberg M, Ruwaard D, Struijs JN, Baan CA. Which triple aim related measures are being used to evaluate population management initiatives? A systematic comparative analysis. Health Policy. 2016;120(5):471-485.

29. Beaulieu MD, Hagerty J, Tousignant P, et al. Characteristics of primary care practices associated with high quality of care. Can Med Assoc J. 2013;185(12):E590-E596.

30. Day GE, South L. Improving the health system with performance reporting—real gains or unnecessary work? Asia Pac J Health Manag. 2016;11(1):8-13.

31. Gené-Badía J, Ascaso C, Escaramís-Babiano G, Catalán-Ramos A, Pujol-Ribera E, Sampietro-Colom L. Population and primary healthcare team characteristics explain the quality of the service. Health Policy. 2008;86(2):335-344.

32. Miranda FJ, Chamorro A, Murillo LR, Vega J. Assessing primary healthcare services quality in Spain: managers vs. patients perceptions. Serv Ind J. 2010;30(13):2137-2149.

33. O'Malley AC, Desroches C, Reid R. Disentangling the linkage of primary care features to patient outcomes: a review of current literature, data sources, and measurement needs. J Gen Intern Med. 2015;30(suppl 3):576-585.

34. Radford A, Sheps CG, Pink G, Ricketts T. A comparative performance scorecard for federally funded community health centers in North Carolina. J Healthc Manag. 2007;52(1):20-31.

35. Rostek K. The reference model of competitiveness factors for SME medical sector. Econ Model. 2012;29:2039-2048.

36. Cross DC, Nong P, Harris-Lemak C, Cohen GR, Linden A, Adler-Milstein J. Practice strategies to improve primary care for chronic disease patients under a pay-for-value program. Healthc. 2019;7(1):30-37.

37. Foskett-Tharby R, Hex N, Chuter A, Gill P. Challenges of incentivizing patient centred care. BMJ. 2017;359;1-6.

38. Henderson S, Princcel CO, Martin SD. The Patient-centered medical home: this primary care model offers RNs new practice- and reimbursement-opportunities. Am J Nurs. 2012;112(12):54-59.

39. Hoogend P, Gillespie D. Implementation of evidence-based practice and organizational performance. J Behav Health Serv Res. 2010;37(1):79-94.

40. Hung DY, Harrison MJ, Liang S-Y, Truong QA. Contextual conditions and performance improvement in primary care. Qual Manag Healthc. 2019;28(2):70-77.

41. Jesus TS, Hoenig H. Postacute rehabilitation quality of care: toward a shared conceptual framework. Arch Phys Med Rehabil. 2015;96(6):960-969.

42. Liu TC, Bozic KJ, Teisberg EO. Value-based healthcare: person-centered measurement: focusing on the three Cs. Clin Orthop Relat Res. 2017;475:315-317.

43. MacFarlane MA. Sustainable competitive advantage for Accountable Care Organizations. J Healthc Manag. 2014;59(4):263-271.

44. Maiga AS, Jacobs FA. Leadership, nonfinancial, and financial outcomes: the case of community hospitals. Account Public Interest. 2009;9:166-190.

45. Manjunath U. Core issues in defining healthcare quality. J Serv Mark. 2008;22(4):72-78.

46. Minchin M, Roland M, Richardson J, Rowark S, Guthrie B. Quality of care in the United Kingdom after removal of financial incentives. BMJ. 2018;357:k4837.

47. Naessens JM, Van Such MB, Nesse RE, et al. Looking under the streetlight? A framework for differentiating performance measures by level of care in a value-based payment environment. Acad Med. 2017;19(7):943-950.

48. Westby MD, Klemm A, Li LC, Jones CA. Emerging role of quality indicators in physical therapist practice and health service delivery. Phys Ther. 2016;96(1):9-10.

49. Acar AZ, Acar P. Organizational culture types and their effects on organizational performance in Turkish hospitals. Emerg Mark J. 2014;33(3):18-31.

50. Albuquerque IF, Cunha RC, Martins LD, Sà AB. Primary health care services: workplace spirituality and organizational performance. J Organ Chang Manag. 2014;27(1):59-82.

51. Babiak SN, Zyaans M, Vohra RC, et al. Measuring practice capacity for change: a tool for guiding quality improvement in primary care settings. Qual Manag Health Care. 2009;18(4):278-284.

52. Crossland L, Jananiam T, Sheenan M, Siskind V, Hepworth J, Jackson CL. Development and pilot study of the Primary Care Practice Improvement Tool (PC-PIT): an innovative approach. Med J Aust. 2014;201(3, suppl):s52-555.

53. Dobson G, Pinker E, Horn RL. Division of labor in medical office practices. Manuf Serv Oper Manag. 2009;11(3):525-537.

54. Faria N, Mendes L. Organizational image's partial mediation role between quality and users' satisfaction. Serv Ind J. 2013;33(13):1275-1293.

55. Goh TT, Eccles MP. Team climate and quality of care in primary healthcare: a review of studies using the team climate inventory in the United Kingdom. BMC Res Notes. 2009;2:222-226.

56. Hays R. Measuring quality in the new era of team-based primary care. Qual Prim Care. 2007;15:133-135.

57. Ohman-Strickland PA, John Orzano A, Nutting PA, et al. Measuring organizational attributes of primary care practices: development of a new instrument. Health Serv Res. 2007;42(3):1257-1273.

58. O’Riordan C. Balancing altruism and self-interest: GP and patient meanings. Irish J Med Sci. 2018;17(1):1-11.

59. Orzano JA, McNernery IR, Scharf D, Tallia AF, Crabtree BF. A knowledge management model: implications for enhancing quality in health care. J Assoc Inf Sci Technol. 2008;59(3):489-505.
60. Rogan L, Boaden R. Understanding performance management in primary care. *Int J Health Care Qual Assur*. 2017;30(1):4-15.

61. Roland M. Pay-for-performance: not a magic bullet. *Ann Intern Med*. 2012;157(1):912-913.

62. Van Schoten S, De Blok C, Spreeuwenberg P, Groenewegen P, Wagner C. The EFQM model as a framework for total quality management in healthcare. *Int J Oper Prod Manag*. 2016;36(8):901-922.

63. Silva S, Fonseca A. Portuguese primary healthcare—sustainability through quality management. *Int J Qual Reliab Manag*. 2017;34(2):251-264.

64. White PT. Practitioner application. *J Health Manag*. 2006;51(1):58-65.

65. Wilson AB, Kerr B, Bastian ND, Fulton LV. Financial performance monitoring of the technical efficiency of critical access hospitals: a data envelopment analysis and logistic regression modelling approach. *J Health Manag*. 2012;57(3):200-212.

66. Anderson RT, Weisman CS, Camacho F, Schollie SH, Henderson JT, Farmer DF. Women’s satisfaction with their ongoing primary health care services: a consideration of visit-specific and period assessments. *Health Serv Res*. 2007;42(2):683-691.

67. Gardner K, Parkinson A, Banfield M, Sargent GM, Desborough J, Hehir KK. Usability of patient experience surveys in Australian primary health care: a scoping review. *Aust J Prim Health*. 2016;22(2):93-99.

68. Gavirneni S, Kulkarni V. Concierge medicine: applying rational economics to health care queuing. *Cornell Hosp Q*. 2014;55(3):314-325.

69. Gillam S, Srivardena AN. The quality and outcomes framework: triumph of technical rationality, challenge for individual care? *Qual Prim Care*. 2010;18:81-83.

70. Ginn GO, Lee RP. Community orientation, strategic flexibility, and financial performance in hospitals. *J Healthc Manag*. 2006;51(2):111-121.

71. Glengård AH. Productivity and patient satisfaction in primary care—conflicting or compatible goals? *Health Policy*. 2013;111(2):157-165.

72. Parkinson A, Banfield M, Dawda P. Experiencing integration in Australian primary health care: a pilot study. *Int J Integr Care*. 2016;16(6):1-8.

73. Martin-Fernández J, del Cura-González MI, Gómez-Gascón T. Differences between willingness to pay and willingness to accept for visits by a family physician: a contingent valuation study. *BMC Public Health*. 2010;10(1):236-246.

74. Schäfer WL, Boerma WG, Kringos DS. Measures of quality, costs and equity in primary health care instruments developed to analyse and compare primary care in 35 countries. *Qual Prim Care*. 2013;21(2):67-79.

75. Greene J, Hibbard JH, Overton V. Large performance incentives had the greatest impact on providers whose quality metrics were lowest at baseline. *Health Aff*. 2015;34(4):673-680.

76. Holt J, Zabler B, Baish MJ. Evidence-based characteristics of nurse-managed health centers for quality and outcomes. *Nurs Outlook*. 2014;62(6):428-439.

77. Lebrun-Harris L, Shi L, Zhu J, Burke MT, Snipipatana A, Nog-Metzer Q. Effects of patient-centered medical home attributes on patients’ perceptions of quality in federally supported health centers. *Ann Fam Med*. 2013;11(6):508-516.

78. Lionis C, Papadakis S, Tatsi C, Bertias A, Duijker G, Mekouris P-B, Boerman W, Schäfer W. Informing primary care reform in Greece: patient expectations and experiences (the QUALICOPC study). *BMC Health Serv Res*. 2017;17:255.

79. Paul DP. The PGP demonstrations: were they sufficient to justify Accountable Care Organizations? *Hosp Top*. 2014;92(1):7-13.

80. Robinson JC, Shortell SM, Rittenhouse DR, Fernandes-Talor S, Gillies R, Casalino LP. Quality-based payment for medical groups and individual physicians. *Inquiry*. 2009;46:172-181.

81. Basto-Pereira M, Furtado SJ, Silva RJ, et al. Performance Indicators for clinical practice management in primary care in Portugal: consensus from a Delphi study. *Eur J Gen Pract*. 2015;21(1):52-57.

82. King R, Clarkson P. Management control system design, ownership, and performance in professional service organisations. *Account Organ Soc*. 2015;45:24-39.

83. Borg SJ, Crossland L, Risk J, Porrit J, Jackson CL. The Primary Care Practice Improvement Tool (PC-PIT) process for organisational improvement in primary care: application by Australian Primary Health Networks. *Aust J Prim Health*. 2019;25:185-191.

84. Gloede TD, Pulm J, Hammar A. Interorganizational relationships and hospital financial performance: a resource-based perspective. *Serv Ind J*. 2013;33(13):235-241.

85. Bardach NS, Wang JJ, De Leon SF, et al. Effect of pay-for-performance incentives on quality of care in small practices with electronic health records: a randomized trial. *JAMA*. 2013;310(10):1051-1059.

86. Greene J, Kurtzman ET, Hibbard JH, Overton V. Working under a clinic-level quality incentive: primary care clinicians’ perceptions. *Ann Fam Med*. 2013;11(3):235-241.

87. Grigoroudis E, Orfanoudaki E, Zopounidis C. Strategic performance measurement in a healthcare organisation: a multiple criteria approach based on balanced scorecard. *Omega*. 2012;40(1):104-119.

88. King R, Clarkson PM, Wallace S. Budgeting practices and performance in small healthcare businesses. *Manag Account Res*. 2010;21(1):40-55.

89. McWilliams JM, Chernew ME, Zaslavsky AM, Hamed P, Landon BE. Delivery system integration and health care spending and quality for Medicare beneficiaries. *JAMA Intern Med*. 2013;173(15):1447-1456.

90. Scott A, Liu M, Yong J. Financial incentives to encourage value-based health care. *Med Care Res Rev*. 2018;75(1):3-32.

91. Lemak CH, Nahra TA, Cohen GR. Michigan’s fee-for-value physician incentive program reduces spending and improves quality in primary care. *Health Aff*. 2015;34(4):645-652.