

Referral Decision-Making and Care Continuity in Physical Therapist Practice

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Abstract

Efficient referral pathways have held promise in improving clinical outcomes, raising patient satisfaction, and reducing costs. Referral decision-making presents a distinct challenge because it requires the consideration of such variables as technology, health-care systems, and local resources. However, best practices for generating a high-value referral and improving care continuity are rarely discussed in the context of physical therapist practice. With physical therapists in some states obtaining explicit imaging privileges and a renewed focus on the physical therapist's role in primary care and patient management over the lifespan, it is time to focus on this underappreciated area of practice. This perspective discusses referral decision-making and provides recommendations for making a high-value referral and improving care continuity. Improving referral and care continuity has potential to enhance clinical outcomes and patient satisfaction and to reduce costs. This perspective explicitly defines and describes strategies to improve physical therapist decision-making about referral and care continuity to improve overall patient management.

Keywords: Continuity of Patient Care, Decision-Making: Clinical, Primary Health Care, Referral and Consultation

Introduction

Fragmented referral pathways are often traveled with inconvenience and frustration by patient and provider alike. When primary care providers refer to specialists, there are often low appointment scheduling rates, clinical decision-making errors,² and communication lapses.² Furthermore, the specialist rarely "closes the loop" by making the results available to the referring provider.³ These examples illustrate the problems of care continuity. Viewed from the perspective of both the patient and provider, care continuity is a "continuous caring relationship" that occurs as the patient effectively navigates the health-care system.⁴ It is also characterized by more seamless coordination and sharing of information between healthcare providers.⁴ Various attempts have been made to improve the referral process and continuity of care over the years, such as referral guidelines developed by specialty organizations and streamlining of care, but more work is necessary to determine the effectiveness of these approaches.²

Historically, physical therapists have spoken only superficially about the issue of referral. The Guide to Physical Therapist Practice⁵ has expanded its discussion of referral to include comanagement and consultation with other providers, but it still does not address referral decision-making or best practice behaviors in depth (Fig. 1). Current textbooks about diagnosis for physical therapists describe referral as an essential part of physical therapist practice, but do not provide explicit guidance for initiating a high-value referral or improving care continuity. However, a recent international framework for red flags recommended physical therapists assess the urgency of the clinical profile, develop a level of concern, and engage in decision-making about patient management, including referral.⁶ Thinking about the level of concern means the physical therapist has to identify specific concerns, and thinking about urgency and the consequence of inaction means the physical therapist must reason about probable outcomes and actions (eg, the patient will be able to access care in a particular setting, the provider receiving the referral will understand the therapist's concerns). This reasoning becomes even more important as physical therapists obtain explicit imaging privileges in a growing number of states and assist in comanaging conditions like hypertension, diabetes, chronic pain, and sleep disorders. Although it is now a necessary part of recommended physical therapist practice, scant literature exists to guide physical therapist reasoning about referral. Therefore, the purpose of the current perspective is to describe referral decision-making strategies for the physical therapist so that patient management and care continuity can be improved. Although the focus of the perspective is on referral within the United States, suggested strategies may also have international applications.

The Importance of System and Social Factors

The concept of the "patient-centered medical home" has been around for almost 50 years. Although it has evolved during that time, most definitions focus on the promotion of whole-person, value-based, and coordinated care models.⁷ This model of care consists of a team of health professionals that is coordinated across multiple settings and systems in the patient's community.⁷ In 2010, the American College of Physicians partnered with other health organizations and introduced the concepts of the "medical neighbor" and

"high-value referral," which they expanded in a 2022 position paper.⁸ The medical neighbor is a specialty practice outside the established patient-centered medical home that agrees to deliver on the features of the care model, including effective communication and care coordination.⁸ "High-value" referral, however, does not appear to be clearly defined and may be better conceptualized as "best practices" since there is no clear evidence that the highlighted behaviors actually lead to better care at a lower cost.⁸

The concept of a medical neighbor and patient-centered medical home aligns closely with the concept of systemsbased practice. Already identified as a core competency for physical therapist residents, systems-based practice involves awareness and responsiveness to the larger context and systems of health care, which is a key component of the patientcentered medical home model. 10 Therefore, understanding the system and societal factors that could hinder timely access to care, for example, is a crucial skill for referral decisionmaking and may be necessary for all physical therapists. These factors should be considered in addition to the more obvious patient factors, problem factors, and provider factors that can influence referral decision-making (Fig. 2). By expanding one's awareness just beyond the health-care system, social and economic factors come into view, which are likely the largest factors in patient health outcomes. 11 Because neighborhoods and communities are part of the social determinants of health, factors germane to the health-care system are part of the social fabric of a community. In other words, referral decisionmaking and care continuity are likely to improve with better awareness of one's place in the health-care system and the community in which that system exists.

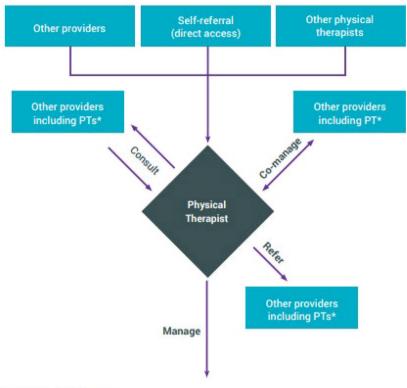
Physical therapists have historically been placed in secondary care or specialist roles, but primary care roles for physical therapists are expanding. 12 In fact, positioning physical therapists at the forefront of care can be beneficial for local communities, reduce wait times, lower costs, and improve patient experience 12—all goals of the patient-centered medical home model. Most physician literature focuses on referrals from primary care physicians to specialists (called specialist referrals) and not what happens when patients self-refer to specialists or specialists refer to other specialists (called crossreferrals). Because of the lack of research investigating referral behavior by physical therapists, the current perspective will primarily draw from sources about specialist referrals. However, in patient management, physical therapists may have either a primary care or specialist role and engage in referrals with different intentions and expectations during the same

Shining a Light on Referral Decision-Making

The process of referral begins with referral decision-making. A referral may occur when the question being addressed is outside the typical scope of care, the patient needs a test that physical therapists are unable to order (eg, magnetic resonance imaging), or another physical therapist specializes in the patient's problem. Because a referral decision usually begins with a question or concern, it is difficult to separate decision-making about referral from decision-making about diagnosis. Physical therapists often talk about screening for red flags, but it may be more accurate to say physical therapists evaluate and manage findings. ¹³ Medical screening is a

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How Physical Therapist Services Are Accessed



The physical therapist:

- · Develops the plan of care/management plan.
- · Retains accountability for the plan of care.
- · Defines boundaries within which others assisting with service delivery operate.
- Always has the option to perform all elements or to direct and supervise physical therapist assistants, physical therapy aides or technicians, and others.
- Shares information about the management plan with the individual's providers as indicated.

Figure 1. Physical therapist referral options. Reprinted with permission of the American Physical Therapy Association (APTA) from 43: Guide to Physical Therapist Practice 4.0. 2023. https://guide.apta.org/.

process whereby a disease can be recognized in its preclinical or prodromal phase before a patient develops symptoms. In contrast, physical therapists typically recognize and respond to signs and symptoms that are already present (eg unexplained weight loss, night sweats). Use of the term "red flag screening" by physical therapists probably originates from a 1975 paper where physical therapists were positioned as first-contact providers for low back pain in the Army. ¹⁴ Fifty years later, physical therapists are now doctoral-level providers who are responsible for establishing their own diagnosis, can sometimes order their own tests depending on their clinical setting and skills, and are involved in comanaging patient health over time.

According to a recent framework,⁶ physical therapists should use the clinical profile of the patient (including their response to treatment) and information about red flags to determine their level of concern. Determining the level of concern means identifying what specifically the therapist is concerned about that requires investigation outside the therapist's scope of practice or training. When these concerns lead to the decision to refer to another provider, then the

physical therapist has met their *referral threshold*. Referral threshold varies among providers and typically depends on provider characteristics (type of training, years of experience, experience with condition at hand, certainty in diagnosis).¹

Once the referral threshold is met, the physical therapist must decide where to refer the patient. Referral settings include nonurgent, urgent, and emergency. A nonurgent referral may be an outpatient office visit with the patient's primary care provider, an urgent referral may be a sameday outpatient appointment or urgent care appointment, and an emergency referral usually involves the emergency room. Nonurgent referrals may also include cross-referrals to other physical therapists in different specialty areas, something that may become more common as specialization increases. The chosen referral setting is largely influenced by the level of concern held by the physical therapist and the urgency (or consequence of delay) of the case. Urgency is a critical factor in referral decision-making and goes beyond a diagnostic label. For example, the difference between concern for "grumbling" cauda equina syndrome symptoms that have been ongoing for years and acute cauda equina syndrome can mean the

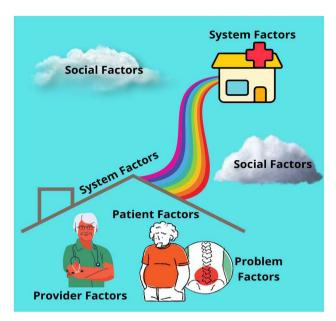


Figure 2. Visual illustration of some of the myriad factors that influence the referral process. Immediate factors at the level of the patient, provider, and problem are more evident, whereas factors related to each system and the social context may be less apparent.

difference between a nonurgent and emergency setting, even though the diagnostic label may remain the same.

Another consideration regarding referral depends on the practice setting of the physical therapist. Cavanaugh¹⁵ used the example of a patient with dizziness of unknown etiology, a clinical presentation that occurs across a wide range of practice settings. Many patients who present with dizziness are referred to the emergency department, which may result in unnecessary costs to the patient. As noted by Sullivan et al, 16 patients in an acute care setting are often medically unstable, increasing the frequency of a physical therapist involved with evaluating patients with concerning and rapidly changing neurological presentations. In contrast, the physical therapist in an outpatient or home health setting is likely to spend more time with patients than a physician, thereby having greater opportunity to observe the progression of neurologic signs and symptoms over time. However, some evidence suggests outpatient physical therapists do not routinely perform cranial nerve examinations¹⁷ or blood pressure screening, ¹⁸ which limits their ability to offer value in such scenarios.

There are several pitfalls to be aware of when deciding whether a referral is appropriate. If a physical therapist has a low referral threshold, there could be a risk of inappropriately over-referring to other providers. Conversely, a high referral threshold could run the risk of under-referring to other providers. Drawbacks of over-referral include overtesting, increased risks (ie, unnecessary imaging and radiation exposure), and increased cost without added benefit to the patient.¹⁹ In contrast, under-referral can lead to diagnostic delays or the patient not accessing timely and appropriate care. Although they are more common in different populations, over-referral and under-referral are both problems in the health-care system.^{1,19} Mehrotra et al¹ found that overreferral occurred frequently in children with musculoskeletal disorders and under-referral occurred more often in patients with diabetes who were not referred for diabetic retinopathy screening.

If the level of concern and urgency are not high, the physical therapist may consider watchful waiting and safety netting as alternatives to referral. Watchful waiting involves monitoring the patient's progress over time and may be particularly useful in physical therapy since patients are seen more frequently. To reduce the risk associated with this approach, the physical therapist should establish a safety net. Safety netting is a primary care approach that communicates uncertainty and provides the patient with information so they can identify red flags that may develop, advice on how and where to seek help if red flags occur, and the likely natural history of the condition. 20,21 An example of safety netting is advising a patient with bilateral leg pain that sudden changes in urinary or sexual function (among others) are serious and should prompt them to seek care in a local emergency room.

Best Practices for Making a "High-Value" Referral

Once the physical therapist determines that a referral is appropriate, there are several best practices to ensure a "high-value" referral scenario and improve the continuity of care. The American College of Physicians has released a model checklist for specialty referral, some of which may be applicable to physical therapists. Many specialty organizations have also released referral guidelines, which mostly focus on the reasons for referral and best practices when making a referral to their specialty. Recommendations made by the American College of Physicians are a good place to start when making a referral and will be used to frame the discussion about referral in physical therapist practice. Further recommendations for improving referrals and care continuity are presented in the Table.

Partner with the Patient and their Family

Involving the patient in decision-making about referral is an essential part of person-focused care. As described by Ronald Epstein, "Patient-centered care is empirically based and promotes respect and patient autonomy; it is considered an end in itself, not merely a means to achieve other health outcomes."22 The origins of shared decision-making lie in medical ethics, beneficence, and the patient-provider relationship.²³ More recently, shared decision-making has been advocated to reduce unnecessary costs in musculoskeletal care²⁴ since informed patients are likely to choose more conservative options.²⁵ Recommendations for shared decision-making include ascertaining what the patient already knows, providing information, giving the patient space to deliberate about what matters to them, and providing supportive dialog.²⁶ A recommended process to encourage shared decision-making is the 3-talk model proposed by Elwyn et al,²⁷ where the phrases "team talk," "option talk," and "decision talk" are used to emphasize collaboration and deliberation with the patient and healthcare team. In team talk, the health-care team members focus on listening to the patient's goals, working together, and offering support.²⁷ In option talk, the emphasis is on comparing available options and their risks.²⁷ Finally, decision talk emphasizes identifying the most important preferences of the patient and helping them arrive at a decision.²⁷ Examples of barriers to shared decision-making are low health literacy, cognitive impairment, available time for decision-making,

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Table. Considerations for a Physical Therapist to Improve Care Continuity and the Quality of Their Referrals^a

Setting the Patient Up for Success

Referral recommendations

Explain the reason for the referral to the patient.

Use the "teach back" method by asking the patient to tell you why they are being asked to see someone else after you have explained it to the patient.

Do not use elliptical physical therapist jargon.

Discuss any potential barriers that may interfere with the appointment and offer solutions.

Make sure the patient is involved in the process of choosing the physician.

Discuss with the patient any activities that need to be done before the referral appointment.

Speak positively about the referring provider and their judgment whenever possible.

Care continuity

Know who you are referring the patient to and where their clinic is located.

Communicate, communicate, communicate.

Follow-up with the patient and the physician after their visit.

"I am sending you to this physician to assess whether this condition is

Examples

"Tell me why I am asking you to see Dr Norris."

not a neuromusculoskeletal condition."

- "Mrs. Jones, we are trying to increase your ankle motion so you can walk easier."
- "Are you able to get to this clinic location safely?"
- "Are you okay with seeing a male physician for this condition?"
- "To make sure we are on the same page, you will need to take your blood work results with you for this upcoming appointment, right?"
- "Dr Griffin is an excellent physician. I would really appreciate his thoughts on this problem, and I trust his expertise."

Consider the use of a preconsultation exchange with the physician.

Provide the patient with verbal and written communication. Use a referral template like Supplementary Appendix 1. Use of a core data set that travels with the patient. SBAR approach.

Clarify roles with the physician to provide for the patient.

transportation, and insurance limitations (eg, health maintenance organization insurance plans may not pay for certain specialists, some insurance plans may require a physician referral). Furthermore, identifying patient values may be the difference between initiating a referral or not. For example, a patient with persistent lumbar radiculopathy and foot drop may prefer to live with foot drop, rather than undergo lumbar surgery, even after being informed that the outcome of surgery is likely to be favorable and risks are relatively rare.

Define Clinical Roles and Responsibilities

When making a referral, physical therapists should clearly define the purpose of the referral and expectations of the referring provider. A failure to communicate expected roles and responsibilities to other health-care providers can lead to patient confusion, duplication of care, and frustration for all parties. Forrest²⁸ created the following typology to define the expected responsibilities of a referral:

- Cognitive consultant. The physical therapist seeks input on an unclear symptom presentation or symptoms that are outside their expertise. An example is referring back to the patient's primary care provider for a patient with unexplained dyspnea on exertion.
- Procedural consultant. The physical therapist recommends a test that they cannot or do not regularly perform, for example, magnetic resonance imaging.
- 3. Comanager sharing the care of a specific problem. The physical therapist recognizes that the expertise and scope of another provider may be helpful for managing a patient's condition. Examples are a pain specialist for a patient with chronic pain or a vascular specialist for a patient with vascular claudication.
- 4. Comanager where the specialist takes on primary responsibility. The physical therapist recognizes that primary

management of the condition needs to be taken over by another provider. An example of this is referral to a neurologist for a patient who presents to physical therapy with early signs and symptoms suggestive of Parkinson disease.

Unfortunately, the literature does not delineate differences in these roles, and they are not often distinguished in physical therapist professional education. However, as physical therapists move into roles as primary care managers of musculoskeletal conditions, efforts are necessary to ensure that physical therapists do not continue to work in silos and acknowledge mutual goals of patient-centered, high-quality care. When initiating a referral, physical therapists should strive to communicate these expectations of the referring provider and the concerns that prompted the referral. If the patient was referred directly to a specialist, the patient's primary care provider should also be informed or collaborated with. As stated by the American College of Physicians recommendations on referral, "The shared understanding of each other's roles means that communication is informed by the understanding of who needs to know what, what they need to know, and how quickly they need to know it."8 Supplementary Appendix 1 presents a referral template that includes this information.

Communicate in a Timely and Productive Fashion

Inadequate content in the referral letter is a frequent complaint of primary care providers and specialists.²⁹ In addition, specialists may not send test results back to primary care providers.³ Physicians who did not receive timely communication about referrals were more likely to report that this hindered their ability to provide high-quality care.³⁰ Anecdotally, physicians in our local communities have reported frustration with referrals from physical therapists that contained no information outlining specific concerns prompting the referral.

^aSBAR = situation, background, assessment, and recommendation or request.

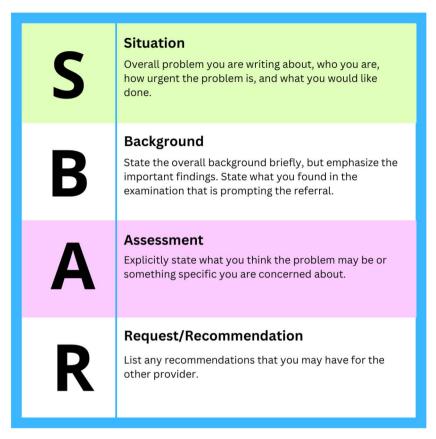


Figure 3. Communicate effectively with other health-care providers either verbally or in writing by using the mnemonic SBAR.

Communication is also important in provider relationships where the physical therapist is comanaging a condition, such as during the critical time immediately after orthopedic surgery. According to Schultzel et al,³¹ operative notes were received less than half the time by 16% of physical therapists and less than a quarter of the time by 33% of physical therapists. Even in cases where the provider has been unresponsive to requests for notes or insight, the physical therapist should continue to attempt to communicate with the provider. In a case series of patients with lower extremity tumors, multiple attempts at communication with physicians were necessary before appropriate testing could occur.³² When referring a patient for an urgent consultation or emergency situation, it is advisable to verbally communicate with the other provider, and it may also be helpful to provide the patient with a written note to take with them that explains the reason for the referral. The TeamSTEPPS program from the Agency for Healthcare Research and Quality recommends using the mnemonic "SBAR" when communicating critical information about a patient's condition.³³ The mnemonic stands for situation (ie, what is going on with the patient), background (ie, what is the background and context), assessment (ie, what you think the problem is), and recommendation or request (ie, what plan of action you would suggest).³³ This mnemonic can be used to communicate information in a written note or verbally. An example of a referral letter using the SBAR template is presented in Figure 3. All communication attempts should also be recorded in the electronic health record, which provides a chronology of patient care for those with access and in case of medicolegal issues.8

Share Data

Data sharing is an important component of making a "high-value" referral. For primary care physicians, this process can include sharing extensive patient files, medication lists, and test results to those outside their medical system. In contrast, physical therapists typically have a smaller amount of information to send, such as data on functional testing, patient-reported outcome scores, strength testing, and overall assessments. A barrier to efficient data sharing between providers is the continued lack of interoperability of systems. For instance, some electronic health records systems targeting physical therapists may not even have referral templates.

Care Continuity: The Missing Link?

The health-care system in the United States remains fragmented and siloed. Care continuity is considered a hallmark of patient-centered, high-quality care and involves the provider being highly engaged with the patient and the care team over time.³⁴ Care continuity is associated with higher patient satisfaction,³⁵ decreased hospitalizations,³⁶ improved preventative care,³⁷ and fewer unnecessary surgeries.³⁷ Although patients with chronic illnesses like diabetes or chronic pain may see many providers annually, fewer than half of primary care providers report frequently coordinating care with those specialists.³⁷ Improved care coordination is also valued by patients³⁸ and is a system factor that has the potential to improve efficiency in care delivery and reduce diagnostic error.³⁹ Continuity of physical therapist care is also important. For instance, patients with low back pain who were cared for

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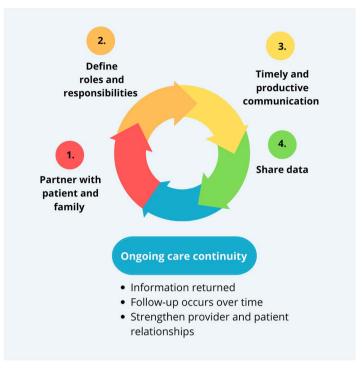


Figure 4. Schematic illustration of how care continuity relates to and influences the 4 recommendations for making a high-value referral.

by a single physical therapist throughout their episode of care were less likely to undergo surgery and had lower downstream health costs. ⁴⁰ If physical therapists "transform society by optimizing movement to improve the human experience" and work to improve population health in their communities, it would seem natural to be concerned with care continuity.

Haggerty et al⁴¹ identified 3 types of continuity: information continuity (eg, transfer of test results), management continuity (eg, roles and a coherent approach to managing the condition are established), and relational continuity (eg, an ongoing relationship between the patient and providers). Taking steps to enhance these types of continuity may prevent the effects of fragmentation of health-care delivery. Many of the steps previously outlined for making a "high-value" referral (eg, timely communication and data sharing) would also improve care continuity. However, there are some additional steps that may improve care continuity.

First, evidence suggests that improving care continuity in the physical therapist clinic is beneficial. In the outpatient setting, patients who see a single physical therapist are 3 times more likely to be satisfied with their care than those who see multiple physical therapists.³⁸ Furthermore, staffing patterns that involve a higher number of assistive personnel during treatment may also have worse clinical outcomes.⁴² Second, once the physical therapist decides on a referral to an outside health-care provider, Mehrotra¹ suggested that the referring provider engage in care coordination to ensure access to the specialist and to verify that the appointment was scheduled. After that, the practitioner should provide information about the reason for the referral. In an ideal scenario, the specialist would send information back to the referring provider about the findings and follow-up recommendations, and the collaborative team would agree on the management plan and the roles of each person involved, thereby "closing the loop." Finally, a key characteristic of care continuity is that it occurs longitudinally (Fig. 4). As

a result, physical therapists should develop ongoing relationships with local providers to enhance relational continuity and keep them updated on patient progress over time. A shareable summary of recommendations for improving referrals and care continuity is provided in Supplementary Appendix 2.

Unfortunately, barriers exist to implementing the behaviors described in the current perspective. For example, fee-for-service health-care models typically do not pay for these best practice behaviors, and physical therapists in high-volume practices may not have time to engage in all of them. Furthermore, turnover in health-care practices may interrupt relationships with other providers, impeding communication and data sharing. However, we believe that establishing systems within one's own clinic (eg, having the front desk staff or aides calling to follow up with patients) and making time to understand the best processes for communicating with key referral sources will make the described steps much easier to implement when needed.

Conclusion

Physical therapists have both primary and secondary care roles in health care. To play a more active role in person-focused care and enhance care continuity, more focus on referral decision-making in physical therapist practice is needed. Therefore, to make a "high-value" referral, physical therapists should partner with the patient and their family, define clinical roles and responsibilities, communicate in a timely and productive fashion, and share data when applicable. Care continuity can be further enhanced by combining a focus on "high-value" referral with ongoing communication with the patient and their providers over time. By attending to referral decision-making and care continuity, physical therapists have an opportunity to enhance their value to patients, providers, and communities.

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References

- 1. Mehrotra A, Forrest CB, Lin CY. Dropping the baton: specialty referrals in the United States. *Milbank Q*. 2011;89:39–68.
- Greenwood-Lee J, Jewett L, Woodhouse L, Marshall DA. A categorisation of problems and solutions to improve patient referrals from primary to specialty care. BMC Health Serv Res. 2018;18:986.
- 3. Patel MP, Schettini P, O'Leary CP, Bosworth HB, Anderson JB, Shah KP. Closing the referral loop: an analysis of primary care referrals to specialists in a large health system. *J Gen Intern Med*. 2018;33:715–721.
- Gulliford M, Naithani S, Morgan M. What is 'continuity of care'? *J Health Serv Res Policy*. 2006;11:248–250.
- Guide to Physical Therapist Practice 3.0. Alexandria, VA: American Physical Therapy Association; 2014. Accessed August 30, 2022. http://guidetoptpractice.apta.org/.
- Finucane LM, Downie A, Mercer C, et al. International framework for red flags for potential serious spinal pathologies. J Orthop Sports Phys Ther. 2020;50:350–372.
- O'Dell ML. What is a patient-centered medical home? Mo Med. 2016;113:301–304.
- 8. Beyond the Referral: Principles of Effective, Ongoing Primary and Specialty Care Collaboration. Position Paper. Philadelphia, PA: American College of Physicians; 2022. Accessed August 30, 2022. https://www.acponline.org/acp_policy/policies/beyond_the_referral_position_paper_2022.pdf.
- Core Competencies of a Physical Therapist Resident. Alexandria, VA: American Physical Therapy Association; 2020. Accessed August 30, 2022. https://abptrfe.apta.org/globalassets/abptrfe/for-programs/clinical-programs/abptrfe-core-competencies-physical-therapist-resident.pdf.
- Gonzalo JD, Wolpaw DR, Cooney R, Mazotti L, Reilly JB, Wolpaw T. Evolving the systems-based practice competency in graduate medical education to meet patient needs in the 21st-century health care system. *Acad Med*. 2022;97:655–661.
- 11. Rethorn ZD, Cook C, Reneker JC. Social determinants of health: if you aren't measuring them, you aren't seeing the big picture. *J Orthop Sports Phys Ther.* 2019;49:872–874.
- 12. American Physical Therapy Association. A Perspective: Exploring the Roles of Physical Therapists on Primary Care Teams. Vol. 21; 2017. Accessed August 12, 2022. https://www.apta.org/your-practice/practice-models-and-settings/primary-care/exploring-roles-of-pts-in-primary-care.

- Cook CE, George SZ, Reiman MP. Red flag screening for low back pain: nothing to see here, move along: a narrative review. Br J Sports Med. 2018;52:493–496.
- James JJ, Stuart RB. Expanded role for the physical therapist. Screening musculoskeletal disorders. *Phys Ther.* 1975;55: 121–131.
- 15. Cavanaugh JT. Examining the patient with dizziness of unknown etiology. *Neurol Rep.* 1999;23:100–113.
- Sullivan KJ, Hershberg J, Howard R, Fisher BE. Neurologic differential diagnosis for physical therapy. *J Neurol Phys Ther*. 2004;28: 162–168.
- 17. Mourad F, Lopez G, Cataldi F, et al. Assessing cranial nerves in physical therapy practice: findings from a cross-sectional survey and implication for clinical practice. *Healthcare (Basel)*. 2021;9:1262.
- Severin R, Sabbahi A, Albarrati A, Phillips SA, Arena S. Blood pressure screening by outpatient physical therapists: a call to action and clinical recommendations. *Phys Ther*. 2020;100:1008–1019.
- Donohoe MT. Comparing generalist and specialty care: discrepancies, deficiencies, and excesses. *Arch Intern Med.* 1998;158: 1596–1608.
- Greenhalgh S, Finucane LM, Mercer C, Selfe J. Safety netting; best practice in the face of uncertainty. Musculoskelet Sci Pract. 2020:48:102179.
- 21. Jones D, Dunn L, Watt I, Macleod U. Safety netting for primary care: evidence from a literature review. *Br J Gen Pract*. 2019;69:e70–e79.
- 22. Epstein RM, Peters E. Beyond information: exploring patients' preferences. *JAMA*. 2009;302:195–197.
- 23. Making health care decisions: a report on the ethical and legal implications of informed consent in the patient-practitioner relationship. In: *President's Commission for the Study of Ethical Problems in Medicine and Biomedical and Behavioral Research*. Washington, DC; 1982.
- 24. Decary S, Zadro JR, O'Keeffe M, Michaleff ZA, Traeger AC, Legare F. Overcoming overuse part 5: is shared decision making our Excalibur? *J Orthop Sports Phys Ther.* 2021;51: 53–56.
- Stacey D, Legare F, Lewis K, et al. Decision aids for people facing health treatment or screening decisions. Cochrane Database Syst Rev. 2017;4:CD001431.
- Elwyn G, Frosch D, Thomson R, et al. Shared decision making: a model for clinical practice. J Gen Intern Med. 2012;27:1361–1367.
- Elwyn G, Durand MA, Song J, et al. A three-talk model for shared decision making: multistage consultation process. *BMJ*. 2017;359:j4891.
- 28. Forrest CB. A typology of specialists' clinical roles. *Arch Intern Med*. 2009;169:1062–1068.
- Gandhi TK, Sittig DF, Franklin M, Sussman AJ, Fairchild DG, Bates DW. Communication breakdown in the outpatient referral process. J Gen Intern Med. 2000;15:626–631.
- O'Malley AS, Reschovsky JD. Referral and consultation communication between primary care and specialist physicians: finding common ground. *Arch Intern Med.* 2011;171:56–65.
- 31. Schultzel M, Scheidt KB, McNeill B, Klein CM, Blout C, Itamura JM. Surgeon-therapist communication must be improved in rotator cuff repair rehabilitation: an electronic survey of physical therapists on postoperative rehabilitation protocols and communication with treating surgeons. *Perm J.* 2021;25:20.088.
- 32. Peterson S, Denninger T, Porter S. Physical therapist clinical reasoning and action for individuals with undiagnosed lower extremity tumors: a report of 3 cases. *J Orthop Sports Phys Ther*. 2017;47: 359–366.
- 33. Agency for Healthcare Research and Quality. *Pocket Guide: Team-STEPPS*. 2020. Accessed November 5, 2021. https://www.ahrq.gov/teamstepps/instructor/essentials/pocketguide.html#sbar.
- 34. American Academy of Family Physicians. *Continuity of Care, Definition of.* Accessed August 30, 2022. https://www.aafp.org/about/policies/all/continuity-of-care-definition.html.

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- 35. Baker R, Streatfield J. What type of general practice do patients prefer? Exploration of practice characteristics influencing patient satisfaction. *Br I Gen Pract*. 1995;45:654–659.
- Cabana MD, Jee SH. Does continuity of care improve patient outcomes? J Fam Pract. 2004;53:974–980.
- 37. Saultz JW, Lochner J. Interpersonal continuity of care and care outcomes: a critical review. *Ann Fam Med*. 2005;3:159–166.
- 38. Beattie P, Dowda M, Turner C, Michener L, Nelson R. Longitudinal continuity of care is associated with high patient satisfaction with physical therapy. *Phys Ther*. 2005;85:1046–1052.
- 39. Newman-Toker DE. A unified conceptual model for diagnostic errors: underdiagnosis, overdiagnosis, and misdiagnosis. *Diagnosis* (*Berl*). 2014;1:43–48.

40. Magel J, Kim J, Thackeray A, Hawley C, Petersen S, Fritz JM. Associations between physical therapy continuity of care and health care utilization and costs in patients with low back pain: a retrospective cohort study. *Phys Ther*. 2018;98:990–999.

- Haggerty JL, Reid RJ, Freeman GK, Starfield BH, Adair CE, McKendry R. Continuity of care: a multidisciplinary review. *BMJ*. 2003;327:1219–1221.
- 42. Resnik L, Liu D, Mor V, Hart DL. Predictors of physical therapy clinic performance in the treatment of patients with low back pain syndromes. *Phys Ther.* 2008;88:989–1004.
- 43. American Physical Therapy Association (APTA). *Guide to Physical Therapist Practice* 4.0. 2023. Accessed May 4, 2023. https://guide.apta.org/.