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Innovation Name: *Closing the Gap: A Knowledge Translation Initiative to Normalize Blood Pressure Screening in Physical Therapist Practice*

Description of Practice Innovation

Hypertension is the leading modifiable risk factor for cardiovascular disease, yet despite strong evidence and professional guidelines, it remains underutilized as a routine screening tool in physical therapist (PT) practice. The 2017 ACC/AHA Guideline emphasized early detection and routine blood pressure (BP) measurement as essential for prevention.[1] Despite this, outpatient physical therapist (PT) practice shows a persistent gap. A national survey of PTs found that while over half of therapists' caseloads include patients at moderate or high cardiovascular risk, only 14.8% consistently measured BP and HR during initial evaluations. Barriers include time constraints, lack of training, unclear role perception, and limited clinic-level supports, even though therapists recognize the importance of cardiovascular screening.[2]

The 2025 AHA/ACC Guideline Update reinforces the urgency of consistent BP screening across all healthcare touchpoints, including allied health professions. It highlights persistent under-detection of masked and white-coat hypertension and emphasizes standardized measurement protocols and interprofessional responsibility.[3] The guideline underscores the critical role that physical therapists can play in ensuring accurate, standardized BP measurement and timely referral, while also highlighting the importance of reducing disparities in hypertension detection.

A clinical decision-making algorithm for BP measurement was first introduced in our practice back in 2010 and updated in 2019 to provide therapists with clear guidance, but uptake has remained inconsistent across outpatient practice settings. This underutilization represents not only a missed opportunity to reduce cardiovascular risk but also a gap in patient safety. Our physical therapists are uniquely positioned to serve as frontline providers for identifying elevated blood pressure, especially in musculoskeletal care where patients may otherwise have limited engagement with primary care, yet barriers have slowed adoption of this evidence-based practice.

This project is a clinical practice innovation designed to directly change frontline screening behaviors in outpatient physical therapy. Guided by the COM-B framework (Capability, Opportunity, Motivation–Behavior)[4], the initiative will directly address barriers by providing education, workflow supports, and audit-feedback to ensure consistent adoption of BP screening. In doing so, it ensures our PTs contribute meaningfully to national hypertension detection priorities while enhancing patient safety and reducing unwarranted variation in care.

Application of Practice Innovation

The distinguishing feature of this project is its deliberate application of knowledge translation (KT) strategies, informed by COM-B, to drive meaningful behavior change. Every patient entering our outpatient clinic will benefit from standardized BP screening embedded into the intake process, ensuring direct and immediate clinical impact. Rather than relying solely on guideline dissemination, this initiative introduces targeted, evidence-based strategies:

- **Framework:** The COM-B model will guide both the design and evaluation of interventions.
- **Strategies:**
    - *Education (Capability):* Targeted training of clinicians and students on accurate BP measurement techniques and application of our revised/updated clinical decision-making algorithm.
    - *Workflow Supports (Opportunity):* EMR prompts, intake checklists, and standardized equipment access.
    - *Audit & Feedback (Motivation):* Regular reports on adherence, with structured reflection to reinforce behavior change.
- **Evaluation:** Chart audits, therapist surveys, and direct observation will assess baseline and post-implementation screening behavior.
    - To guide evaluation of our knowledge translation initiative, the COM-B framework will be operationalized as an assessment matrix:

COM-B Domain	Assessment Focus	Methods of Evaluation
Capability (knowledge, skills)	Therapist knowledge of BP guidelines and skill in accurate measurement	a) Pre/post knowledge tests b) Direct observation c) Journal club/Case-based scenarios
Opportunity (environment, resources)	Availability of equipment, workflow supports, and EMR prompts	a) Clinic audit b) Therapist surveys on workflow feasibility
Motivation (beliefs, values, priorities)	Therapist confidence, perceived relevance, and commitment to screening	a) Survey measures b) Qualitative interviews c) Audit-feedback reflections
Behavior (Target Outcome)	Frequency and consistency of BP measurement in routine practice	a) Chart audits b) Comparison of baseline vs. post-implementation adherence rates

    - This assessment approach allows us to identify which barriers are most salient in our clinic and to adapt KT strategies over time to maximize sustainability.

What Makes it Innovative?

- Moves beyond guideline dissemination to structured KT application, ensuring practice change rather than passive awareness.
- Applies an implementation science framework (COM-B) infrequently used in PT clinical innovation.
    - While widely applied in health behavior research, COM-B remains underutilized in physical therapy research compared to other frameworks.[4,5]
- Prioritizes patient safety by embedding cardiovascular risk assessment into musculoskeletal care.
- Provides a scalable KT model for use in other outpatient PT settings.

Unique Attributes of the Innovation

- **Behavior-Change Driven:** Explicitly addresses knowledge, environmental, and motivational barriers.
- **Integrated Workflow:** Embeds BP screening into routine intake rather than treating it as optional.
- **Evidence-Aligned:** Anchored in 2025 AHA/ACC guideline priorities by directly responding to published findings on PT underutilization of cardiovascular screening.[1-3]
- **Locally Tested, Broadly Applicable:** Generates a replicable model for dissemination.

Impact on the Profession

- Demonstrates the PT profession's commitment to reducing unwarranted variation in care.
- Elevates PT's role in preventive health and early detection of cardiovascular disease, aligning with national health priorities.
- Provides an example of how knowledge translation can advance PT practice, bridging evidence and clinical care.

Impact/Relevance of Practice Innovation to Patient Care/Treatment

The innovation's success will be measured not only by PT behavior change but also by patient-level outcomes: detection of uncontrolled hypertension, timely referral, and safer care delivery.

- **Improved Patient Safety:** Ensures physical therapy services are delivered with cardiovascular risk accounted for.
- **Early Risk Detection:** Identifies masked hypertension and reduces missed cases.
- **Timely referral:** Increases the likelihood of timely referral for hypertension management by facilitating interprofessional care aligned with 2025 guidelines.

- **Holistic Care:** Expands PT care beyond musculoskeletal management to include cardiovascular health.
- **Equity in care:** Standardized screening for all patients helps reduce disparities in detection and reinforces PTs as comprehensive, evidence-based providers.

Outcomes of the Practice Innovation

Outcomes will be assessed through COM-B, with explicit ties to patient care:

- **Capability:** Trained PTs accurately measure BP → earlier identification of hypertension → safer treatment and timely referral.
- **Opportunity:** EMR prompts and standardized workflows → consistent screening for every patient → fewer missed detections.
- **Motivation:** Audit-feedback cycles reinforce PT's accountability → improved adherence to guidelines → higher quality care.
- **Behavior:** Measurable increases in frequency and accuracy of BP measurement → aligns PT practice with national standards[1,3].

Collectively, these outcomes demonstrate both therapist-level change and direct patient-level benefit.

Current Stage of Innovation and Development Timeline

- **Problem Identified**: National data demonstrate low uptake of BP screening in outpatient PT practice.[2]
    - *June 2025:* An internal chart audit as part of quality improvement corroborated these findings within our clinic.
    - *July 2025:* A staff survey identified key barriers and facilitators to BP screening.
    - *September 2025:* Institutional Review Board approval is being sought to allow systematic evaluation as Human Subjects Research.
- **Solution Defined**: The project will leverage a PT-specific clinical decision-making algorithm and embed knowledge translation strategies guided by the COM-B framework.
- **Local Readiness**: Clinic leadership has approved revisions of decision-making algorithm to integrate BP screening into routine workflow, and staff have expressed readiness and engagement.
- **Innovation Gap**: While tools and guidelines exist, no structured KT approach has yet been applied in PT practice to systematically bridge the gap from knowledge to action.

Stage	Activities	Timeline	Deliverables
1. Preparation	a) Finalize protocols and submit/obtain IRB approval. b) Develop training materials. c) Calibrate BP equipment.	Months 1–2	Training modules, EMR templates, baseline audit data

Stage	Activities	Timeline	Deliverables
	d) Investigate potential for EMR prompts.		
2. Training & Launch	a) Deliver clinician & student workshops. b) Implement workflow supports.	Months 3–4	≥90% staff trained; BP measurement launched as standard practice
3. Early Implementation	a) Conduct baseline → post-training chart audits. b) Begin audit-feedback cycles.	Months 5–7	Initial report of screening uptake and accuracy
4. Full Implementation	a) Sustain workflow supports. b) Continue audit-feedback.	Months 8–10	≥80% adherence to screening prompts
5. Evaluation & Dissemination	a) Analyze outcomes (screening rates, referrals, patient safety events). b) Prepare abstract/manuscript for AOPT dissemination. c) Develop replication toolkit for provider uptake.	Months 11–12	Final report + dissemination products

Cost of Innovation

Award funds will directly support clinic-level implementation and dissemination activities:

- **$450 – Training Sessions & Materials**
- **$550 – Workflow Integration**
- **$500 – Evaluation & Dissemination**

Total: $1,500

Detailed Description of Award Fund Allocation

Award funds will be strategically applied to clinic-level implementation and dissemination activities, ensuring that the innovation delivers direct patient benefits while also generating tools that can be scaled across the profession. By supporting this initiative, the award will:

- **Equip clinicians and students with a practical, evidence-informed model** for integrating cardiovascular screening into routine physical therapist practice, bridging the gap between knowledge and action.
- **Enhance consistency and reliability of care delivery**, reducing unwarranted variation in BP screening practices within our clinic and creating a model that can be readily adopted by other settings.
- **Strengthen the profession's contribution to population health and prevention**, positioning physical therapists as visible, accountable members of the interdisciplinary team responsible for early detection and management of hypertension.

This investment ensures that outcomes extend beyond a single site, creating a replicable framework that advances both patient safety and the profession's role in addressing one of the most significant public health challenges. Detailed fund allocation is as follows:

- **$450 – Training Sessions & Materials:** Hands-on workshops for clinicians and students, including supplies and printed/online materials to ensure competency in guideline-based BP measurement.
- **$550 – Workflow Integration:** Revision and integration of decision-making algorithm for clinicians, development of EMR prompts, redesign of intake checklists, and calibration/maintenance of BP equipment to support consistent, reliable screening.
- **$500 – Evaluation & Dissemination:** Chart audits, survey development, and data analysis, along with preparation of three dissemination deliverables:
    1. **Final Report to AOPT** summarizing outcomes and lessons learned.
    2. **Manuscript Submission** to a peer-reviewed journal (e.g., *JOSPT* or *Physical Therapy*), with budgeted funds to offset potential publication fees.
    3. **Knowledge Translation (KT) Toolkit for Providers,** a standalone, packaged set of materials funded directly by this award—will include training slides, workflow templates and decision-making algorithm, EMR prompt examples, and audit-feedback tools—designed for direct use by other outpatient PT clinics to replicate the innovation in their own settings.

Training Required for Utilizing the Innovation

Training is focused on frontline clinicians, residents/fellows, and students directly impacting patient care delivery. Training requires only a single workshop and competency check, integrated into existing staff development and student orientation, ensuring minimal cost and long-term sustainability.

- Accurate BP measurement and interpretation.
- Familiarity with current and revised/updated decision-making algorithm.
- Orientation to EMR prompts and workflow supports.

Justify AOPT Funding this Innovation

This project aligns directly with AOPT's grant initiative to recognize and support clinical innovation in practice. By funding this initiative, AOPT directly enables the creation of training resources, workflow integration, and outcome evaluation necessary for success. By supporting this project, AOPT invests in a practice-based innovation that advances patient safety, reduces unwarranted variation, and strengthens the role of PTs in preventive care. The findings will be shared broadly, ensuring that the impact of this innovation extends well beyond our local clinic.

References

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