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Core Outcome Measures for Adults with Neurologic Conditions: Pilot Implementation in Hospital-Based Outpatient Clinic.

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Purpose

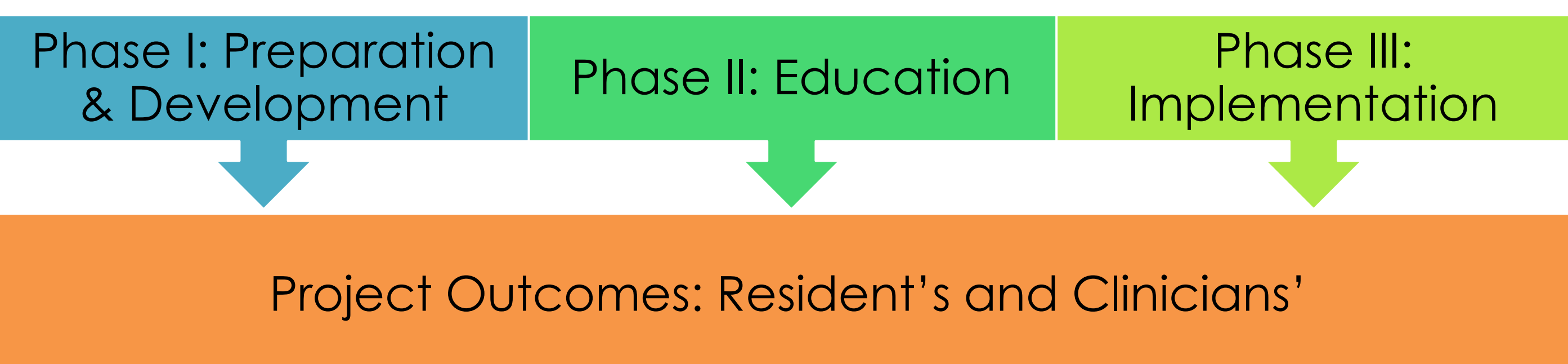
To describe a pilot implementation project of 3 of the core neurologic outcome measures (OMs) within a small outpatient clinic.

Description

- OMs provide a standardized method to track patient progress and functional status across levels of care
- Consistent OM use is crucial to reflect expertise in the movement system and to implement evidence-based clinical practice guidelines (CPGs)¹⁻³
- Core OMs (COMs) identified through CPG, and the Academy of Neurologic PT (ANPT) developed tools to facilitate use of COMs in the clinic⁴⁻⁶
- PTs should have adequate exposure to and demonstrate competent administration of COMs, reflecting DPT education in the clinic environment⁷
- Neurologic residency capstone project bridged a knowledge translation (KT) gap by providing clinicians with didactic knowledge and skills training to aid in standardized administration of OMs

Summary of Use

- Needs assessment identified:**
 - Clinic ($n = 12$ PTs including the resident) was not equipped to use COMs according to ANPT recommendations
 - Inconsistent use of OMs within the clinic
 - Staff expressed willingness to begin adopting the CPG recommendations.
- Project scope:**
 - Developing a plan to tackle lack of consistent, standardized OM use in the clinic
 - Major components enacted by the resident are outlined in flowchart below:



Summary of Use

Phase I: Preparation & Development of:

- Documentation phrases
- Administration guides provided electronically
- Equipment list and clinic set-up
- Binder in clinic with master copy of guides
- Competency checklist
- Survey to assess effectiveness of education
- Chart audit tool

Phase II: Education

Inservice	Lab
<ul style="list-style-type: none"> CPG: <ul style="list-style-type: none"> Background Development process Intended use All 6 COMs: <ul style="list-style-type: none"> Constructs Documentation Specifics 3 small groups for cases: <ul style="list-style-type: none"> Acute, chronic stable, chronic progressive conditions Summary sharing Lab plan (OMs to train) 	<ul style="list-style-type: none"> OMs trained: <ul style="list-style-type: none"> 5TSTS 10mWT FGA Project development items utilized: <ul style="list-style-type: none"> Equipment/clinic setup Competency checklist Copies of administration guides for PTs Demo by the resident PTs roll-playing

Phase III: Implementation (5 weeks)

15 July 2019

"Roll-out" went live 7/15/19 with survey, weekly check-ins, and tracking use of measures with chart audits

16 August 2019

Audit tool used to track for 5TSTS, 10mWT, and FGA to be administered to neuro patients at evaluation (IE), re-eval, and discharge (DC)

Project Outcomes

Phase I Components Utilized in Clinic During Phase III	Staff + Resident Utilization
Documentation phrases (chart review)	100%
Clinic equipment/set-up	100%
Administration guides (electronic)	100%
Binder (hard copies)	25%

Survey:

- 47% response rate ($n = 11$ PTs not including the resident)
- 71% stated education/lab led to improved knowledge of OMs and their role in patient management, in addition to willingness to use the OMs
- Barriers and obstacles identified: time and clinic space
- 100% stated **high likelihood** to use administration guides to help administer the 5TSTS, 10mWT, and FGA
- 46% stated **moderate likelihood** to discuss OM results with patients and incorporate shared decision-making and goal-writing into POC
- Staff caseload: < 10% neuro; resident caseload: 100% neuro

Clinician performance:

- Clinicians (3/11 PTs) each completed 1 IE, and with inconsistent performance using chart audit tool
 - They each used documentation phrases accurately (100%)
 - None incorporated an education statement/shared decision-making, or used OMs in their goals, nor did they show any evidence of re-assessing the OMs at re-eval or DC (0%)
- Even with training and environmental setup, performance was not 100% consistent

Resident performance:

- Resident consistently used outcome measures per goal of the project using chart audit tool
 - Included documentation phrases, education/shared decision-making statement, using OMs in goals, and re-assessing at re-eval and DC (100%)
 - For 21 IEs: 19% had all 3 OMs captured at 1st visit, 63% had all 3 OMs captured by the 3rd visit
 - There was no correlation between diagnosis and which OMs were captured at 1st vs capturing all 3 at 1st visit vs capturing all 3 by the 3rd visit

Results and Discussion

- Resident's self-reflection:
 - Residency training provided the avenue to improve standardization of OMs and understanding of their clinical importance → considering *why* ("appropriate" vs "not appropriate" vs "scoring a 0" vs "screening")
 - OMs are reasonable to train with minimal equipment
 - Embedding OMs in evaluation template helped with frequency of use
- This project included similar and additional elements to what has been described in the implementation science literature, but over a shorter timeframe⁸⁻⁹
- Literature has limited data on solutions to limited clinician adherence and challenges with KT⁸⁻⁹
- Staff appreciate feedback to help with consistency⁸⁻⁹
- Limitations: duration; participation; single sight

Clinical Significance

- Barriers to achieving OM administration with consistent clinician performance are clinic-wide, and putting a CPG into practice takes a lot of work^{5,6,11-14}
- Change in practice can be met with resistance^{5,6,11-14}
- This pilot project may reflect a reasonable method to standardize COM implementation into hospital-based outpatient clinics in a way that is not overwhelming to clinicians nor overtly costly to management, and it may be able to aid in outcomes tracking⁸⁻⁹
- COMs have wide utility, and their use is not exclusive to patients with neurologic diagnoses; this may allow clinicians more practice using the COMs

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