Feasibility of the use of the Clinically Aligned Pain Assessment Measure (CAPA) in Chronic Pain Patients in a Primary Care Setting

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BACKGROUND

- Chronic pain is a complex disease process that encompasses more than the physical intensity of pain, but also the psychosocial and functional impacts of long-term pain.

- Because pain is subjective, and includes emotional and somatosensory components, pain assessments must incorporate measures that reflect both the intensity and the impact of pain on psychosocial and functional status.

- The Clinically Aligned Pain Assessment (CAPA) measure is an assessment tool that opens dialogue between patient and provider focusing on pain intensity, the impact of pain on sleep and daily function, and the usefulness, value and efficacy of the pain management regimen.

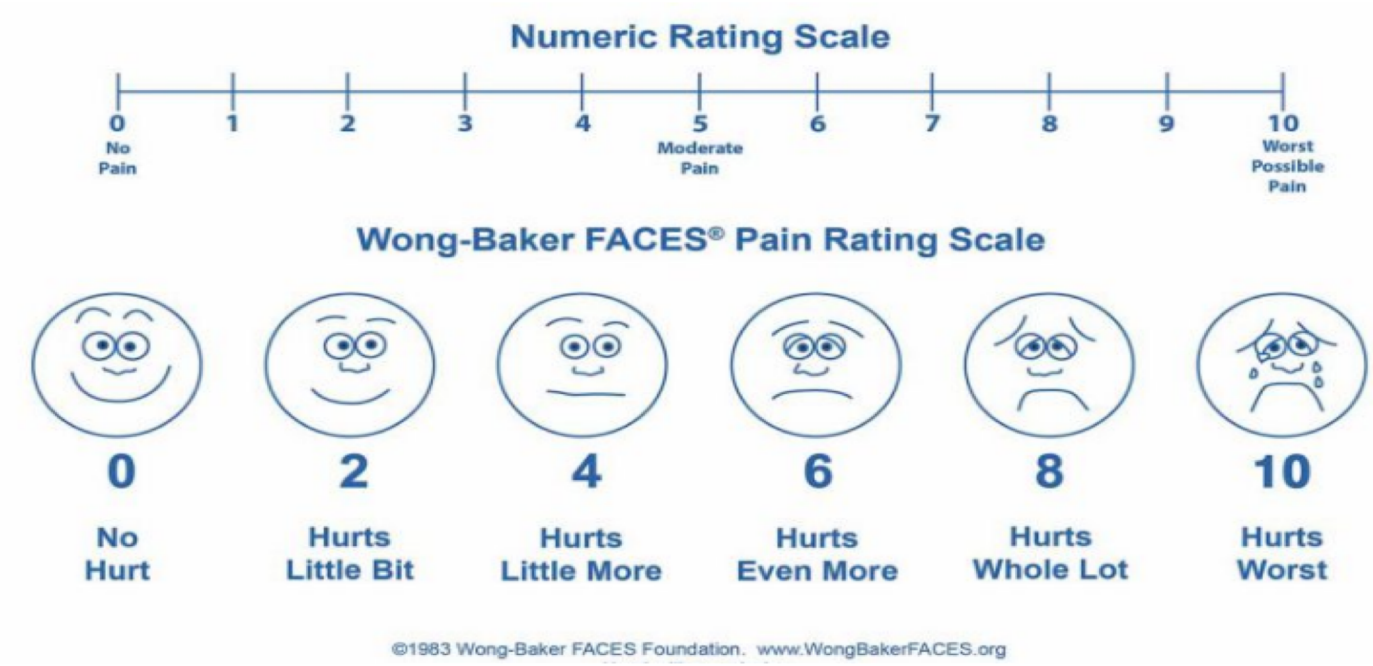
(Boggero & Carlson, 2015; Flannery et al., 2018; Topham & Drew, 2017)

Pain Assessment Scales

TABLE 2.
University of Minnesota Medical Center's Modified CAPA Tool

CAPA Tool (Modified; *original italicized*)	
Question	Response
Comfort	• Intolerable • Tolerable with discomfort • Comfortably manageable • Negligible pain
Change in Pain	• Getting worse • About the Same • Getting better
Pain Control	• Inadequate pain control • Partially effective *(Effective, just about right)* • Fully effective *(Would like to reduce medication [why?])*
Functioning	• Can't do anything because of pain • Pain keeps me from doing most of what I need to do • Can do most things, but pain gets in the way of some • Can do everything I need to
Sleep	• Awake with pain most of night • Awake with occasional pain • Normal sleep

Note. University of Minnesota Medical Center's Modified CAPA Tool. From "Quality Improvement Project: Replacing the Numeric Rating Scale with a Clinically Aligned Pain Assessment (CAPA) Tool," by D. Topham & D. Drew, 2017, Pain Management Nursing, 18(6), p. 365 (https://doi.org/10.1016/j.pmn.2017.07.001). Copyright 2017 by Elsevier.



Note. The Numeric Rating Scale and the Wong-Baker FACES ® Pain Rating Scale. From "Reassessing the assessment of pain: how the numeric scale became so popular in health care," by E. Gordon, 2016, The Pulse (https://whyy.org/). Copyright 2020 by WHYY.

PICO(T) QUESTION

- For adults aged 18 and older (P), does telephonic use of the Clinically Aligned Pain Assessment (I) increase patient satisfaction with pain assessments (O) compared to pre-intervention patient satisfaction (C)?

Evidence Retrieved

Article	Author	Journal	Date	Site	Evidence Type	Sample	Summary	Limits	Quality
1. Quality Improvement Project: Replacing the Numeric Ratigin Scale with a Clinically Aligned Pain Assessment (CAPA) Tool	Topham & Drew	Am Society for Pain Mgmt Nursing	2017	U of Minn	Process Improvement	hospital-wide over 3 years	Use of CAPA for pain assessment increased patient and RN satisfaction	Not RCT, <1% average improvement in Press Ganey pain scores over 3 years	Low
2. Pilot Testing the Clinically Aligned Pain Assessment (CAPA) Measure	Twining & Padula	Am Society for Pain Mgmt Nursing	2019	Miriam Hospital in RI	Qualitative	16 patients, 24 staff - convenience sample	Focus groups and patient interviews regarding Numeric Rating Scale (NRS) v. CAPA, more patient trust in CAPA	First of its kind, single setting, focused on satisfaction more than pain control	Medium
3. Structured telephone support or non-invasive telemonitoring for patients with heart failure (Review)	Inglis et al	Cochrane Library	2015	n/a	Systematic Review	41 studies, 12, 947 participants	Telephone support & telemonitoring impoved mortality, HF hospitalization, QOL, and HF self-care, shows phone support can improve chronic conditions	Variable quality of studies being evaluated	High
4. Somatosensory and Affective Contributions to Emotional, Social, and Daily Functioning in Chronic Pain Patients	Boggero & Carlson	Pain Medicine	2015	U of Kentucky	Survey	472 ambulatory orofacial patients	Pain intensity & unpleasantness are distinct phenomena affecting functional outcomes and should be measured separately	No intervention tested, only orofacial patients at single site	Medium
5. Accuracy of the Pain Numeric Rating Scale as a Screening Test in Primary Care	Krebs et al	J of General Internal Medicin	2007	U of North Carolina	Prospective Diagnostic Accuracy Study	275 adults in internal medicine clinic	Pain screening with the NRS has only modest accuracy for clinically important pain in primary care	No "gold standard" of clinically improtant pain, 1/3 declined to participate, single site	Medium
6. Simple pain rating scales hide complex idiosyncratic meanings	Williams et al	J of General Internal Medicin	2000	U of London	Qualitative	78 inpatients	Patients use of pain scales is idiosyncratic and vary depending on the demands of the assessment context	Few clear themes	Medium
7. Development of a Chronic Pain Specific Version of the Sickness Impact Profile	McEntre & Vowles	American Psych Assn	2015	U of New Mexico	Test Reliability	728 amb. chronic pain patients	Shorter version of SIP specific to chronic pain has content validity using item response theory	First study	Medium
8. Pain Assessment as a Social Transaction	Schiavenato & Craig	The Clinical Journal of Pain	2010	U of Rochester	Expert Opinion	n/a	Identifies pain assessment as a social transaction requiring an intersubjective exchange of meaning between patient & clinician	Opinion only	Low
9. Measuring Pain as the 5th Vital Sign Does Not Improve Quality of Pain Management	Mularski et al	J of General Internal Medicin	2006	Portland VA	Retrospective Review	300 pre-intervention, 300 post-intervention	No improvement in 7 dimensions of pain control after initiation of assessing pain as the "5th vital sign"	Retrospective only, single setting	High
10. More than pills: alternative adjunct therapies to improve comfort in hospitalized patients	Moore et al	British Medical Journal	2019	U of Kansas	Process Improvement	205 inpatients	CAPA used to assess non-pharmacological interventions for treating pain and found	Not RCT	Low

- Databases searched: PubMed, CINAHL
- Key words used: chronic pain, pain assessment, ambulatory, telephone
- Limits used: adults

Evidence Summary

- Telephone-based support can improve patient outcomes including mortality, hospitalizations, quality of life and self-care.
- Current pain assessments, including the numeric pain scale and consideration of pain as the “Fifth Vital Sign” do not demonstrate accuracy in assessment or improvement in pain-related outcomes.
- Holistic pain assessment should include a measure of the impact of pain on functional status and quality of life.
- The CAPA measures has demonstrated improvement in patient and RN satisfaction. Patients report increased trust in the CAPA’s ability to adequately measure their pain.

(Boggero & Carlson, 2015; Inglis et al., 2015; Krebs et al., 2007; Mularski et al., 2006; Schiavenato & Craig, 2010; Topham & Drew, 2017; Twining & Padula, 2019; Williams et al., 2000).

ACTION PLAN

- Present to key stakeholders at Family Medicine at Gabriel Park
- Submit IRB for approval
- Develop training for use of the CAPA measure
- Prepare Gabriel Park for pilot study
- Implement intervention
- Collect and analyze data
- If CAPA measure demonstrates feasibility for telephone triage use in chronic pain patients, consider further research with other primary care or specialty clinics

“I don’t use the numeric pain scale for decision making at all.
I would never change my treatment recommendations based on the pain number.
It helps with diagnosis but it is not a vital sign.
Getting the pain level to zero does not improve health or survival.
Getting to functional is more important.
These CAPA questions are more in line with what I ask during a clinic visit.
The only thing I would be sure to ask is whether the treatment plan is effective, rather than is the pain medication effective (since pain treatment can have multiple modalities).”

-Gabriel Park Provider

PROJECT METRICS - TBD

	Metric	Operational Definition	Source of Data	Data Collection Frequency	Data Aggregation (frequency & level of analysis – unit, pt. pop)	Feedback Plan (to what stakeholders, & when)
PROCESS						
OUTCOME						

RESULTS - TBD

Return on Investment - TBD

Cost of Change		Benefit of Change		
Supplies:	$		Baseline	Post
		One-time reduction (supplies, labor, equipment)	$	$
		Ongoing reductions (supplies)	$	$
Equipment:	$	Increased revenue (e.g., higher patient volumes, reduced LOS or readmissions)	$	$
Labor costs:	$	Prevention of complications*	$	$
Other costs:	$	Other	$	$
Subtotal	$	Subtotal	$	$
OVERALL RETURN ON INVESTMENT		$		

*Obtain cost of complication/case from finance OR annualize savings from most recent costs found in literature

CHALLENGES

- COVID-19: The pandemic put our study on hold, thus we have not been able to move beyond writing our IRB proposal.
- We do have some concerns moving forward with this project due to potentially limited financial and emotional resources, related to the ongoing pandemic.
- Thus far, leaders at Gabriel Park have been enthusiastic and supportive of the project, so we feel reassured at this time.

IMPLICATIONS FOR PRACTICE - TBD

CONCLUSION

- The CAPA measure is a novel approach to pain assessment that may improve patient and provider satisfaction; improve patient quality of life; and increase patient trust in provider ability to manage pain.
- Family Medicine at Gabriel Park is supportive and enthusiastic about implementing this tool. Pending IRB approval, we hope to move forward in late Summer 2020.

QUESTIONS & DISCUSSION

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