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Title: Doctors of chiropractic working with or within integrated health care delivery systems: a scoping review protocol

Appendices

Online Supplementary Appendix 1: Description of conceptual framework

Online Supplementary Appendix 2: Search strategy

Online Supplementary Appendix 3: Extraction form

Online Supplementary Appendix 4: Extraction guide

Online Supplementary Appendix 1. Description of conceptual framework

Implementation science is "the scientific study of methods to promote the systematic uptake of research findings and other evidence-based practices into routine practice, and hence, to improve quality and effectiveness of health services".[1]

The **Proctor Conceptual Model** guides the process of evaluating both implementation and clinical outcomes of a specific clinical intervention. The Proctor Conceptual Model for the study of Implementation Research comprises three domains: clinical intervention, implementation strategies and outcome measurement.[2]

Clinical Interventions are evidence-based practices. The clinical intervention of interest in this scoping review is chiropractic care, which includes evaluation and treatment. Common treatments provided by DCs for back and neck pain include joint manipulation, soft tissue therapy, patient education, and exercise instruction.[3, 4] These approaches align with clinical practice guidelines for back pain, neck pain, and headache.[5-12]

Implementation strategies are defined as methods to enhance the adoption, implementation, sustainment, and scale-up of an innovation.[13] Implementation strategies address facilitators and/or barriers to successful implementation at one or more socioecological levels, such as policy, systems environment, organizational structure, individual providers, and consumers. Furthermore, implementation strategies influence the uptake of the 'clinical intervention' through addressing barriers at one or more levels of influence (e.g. patient-, provider-, clinic-, and health-system factors) to facilitate implementation The Expert Recommendations for implementing Change (ERIC) Project taxonomy is a comprehensive organized list of implementation strategies.[14-16] The ERIC Project encompasses a set of 73 implementation strategies across 9 domains.

Outcome measurement, in the Proctor Conceptual Model, differentiates implementation and clinical outcomes. Successful implementation is thought to be necessary for clinically efficacious interventions to be effective in real world settings.[2] The Proctor Conceptual Model identifies and defines eight core implementation outcomes.[17] Three of these implementation outcomes (acceptability, appropriateness, feasibility) are strong predictors of implementation success,

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sometimes considered pre-implementation outcomes. The other five (reach, adoption, fidelity, cost, penetration, and

sustainability) are typically used to evaluate effectiveness of implementation strategies. Important clinical outcomes for

adults with common musculoskeletal conditions include pain, physical function, quality of life, and patient satisfaction.[18, 19]

Online Supplementary Appendix 2: Preliminary search strategy

Pubmed	((((((("Referral and Consultation"[Mesh] OR "Interprofessional Relations"[Mesh] OR Implementation[Title/Abstract] OR Implement[Title/Abstract] OR Implemented[Title/Abstract] OR Integration[Title/Abstract] OR Integrated[Title/Abstract] OR Integrate[Title/Abstract] OR Dissemination[Title/Abstract] OR Disseminate[Title/Abstract] OR Disseminated[Title/Abstract] OR Roll out[Title/Abstract] OR Knowledge translation[Title/Abstract] OR Knowledge transfer[Title/Abstract] OR interdisciplinary[Title/Abstract] OR multidisciplinary[Title/Abstract])) AND (("Chiropractic"[Mesh] OR "Manipulation, Chiropractic"[Mesh] OR "Manipulation, Spinal"[Mesh] OR Chiropractic[Title/Abstract] OR Chiropractor[Title/Abstract] OR Spinal manipulation[Title/Abstract] OR Manual therapy[Title/Abstract] OR Non-pharmacologic[Title/Abstract] OR Spine care[Title/Abstract]))) AND ("Hospitals"[Mesh] OR "Delivery of Health Care"[Mesh] OR "Academic Medical Centers"[Mesh] OR "Health Facilities"[Mesh] OR Health care[Title/Abstract] OR Health care service[Title/Abstract] OR Healthcare[Title/Abstract] OR Healthcare service[Title/Abstract] OR Hospital[Title/Abstract] OR Health services research[Title/Abstract] OR Primary care[Title/Abstract] OR Community health center[Title/Abstract] OR Veteran's affairs[Title/Abstract] OR Veterans affairs[Title/Abstract] OR Utilization[Title/Abstract] OR Delivery[Title/Abstract] OR Service[Title/Abstract] OR Services[Title/Abstract] OR Hospital program[Title/Abstract] OR Hospital programs[Title/Abstract] OR Tertiary service[Title/Abstract] OR Tertiary services[Title/Abstract] OR medical center[Title/Abstract])) AND ("1998/01/01"[PDat] : "3000/12/31"[PDat]) AND English[lang]))
Web of Science	TS=(refer* OR consult* OR interprofessional relation* OR implement* OR integrat* OR disseminat* OR roll out OR knowledge trans* OR multidisciplin* OR interdisciplin*) AND TS=(chiroprac* OR spin* manipulat* OR "manual therap*" OR non-pharmacologic OR spine care) AND TS=(hospital OR hospitals OR health center* OR health facilit* OR primary care OR community health center* OR veterans affairs OR veteran's affairs OR medical center*)

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| Embase | ('patient referral'/exp OR 'public relations'/exp OR 'implementation'/exp OR 'integration'/exp OR 'dissemination'/exp OR 'knowledge translation'/exp OR 'knowledge transfer'/exp OR 'implement*':ab,ti OR 'integrat*':ab,ti OR 'disseminat*':ab,ti OR 'roll out':ab,ti OR 'knowledge translat*':ab,ti OR 'knowledge transfer*':ab,ti OR 'multidisiplin*':ab,ti OR 'interdisciplin*':ab,ti

AND

'chiropractic'/exp OR 'chiropractor'/exp OR 'chiropractic practice'/exp OR 'chiropractic manipulation'/exp OR 'spine manipulation'/exp OR 'chiropract*':ab,ti OR 'spinal manipul*':ab,ti OR 'manual therapy':ab,ti OR 'non-pharmacologic':ab,ti OR 'spine care':ab,ti

AND

'health care facility'/exp OR 'primary medical care'/exp OR 'veterans affairs hospital'/exp OR 'hospital':ab,ti OR 'health services research':ab,ti OR 'primary care':ab,ti OR 'community health center':ab,ti OR 'veterans affairs':ab,ti OR 'hospital program*':ab,ti OR 'medical center*':ab,ti) |
|---|---|

Online Supplementary Appendix 3. Extraction form

Reviewer: Date:	

Study characteristics

Variable	Category	Notes / Excerpts from manuscript (page number)
Study title	☐ _____ 　(please specify)	
First author	☐ _____ 　(please specify)	
Publication year	☐ _____ 　(please specify)	
Study country	☐ _____ 　(please specify)	
Journal	Journal name _____ 　　　(please specify) Select category ☐ Chiropractic ☐ Complementary and integrative health ☐ General medicine ☐ Physical medicine and rehabilitation	

	☐ Other (please specify: _____)	
Number of medical settings represented	Name of integrated health care delivery system: _____ (please specify) How many clinics in study? _____ (please specify) If multiple, are they: ☐ Independent ☐ Part of same healthcare system ☐ Unclear (please specify: _____)	
Departmental affiliation of medical setting(s)	☐ Internal medicine ☐ Family medicine ☐ Physical medicine/rehabilitation ☐ Integrative medicine ☐ Orthopedics ☐ Pain medicine ☐ Other (please specify: _____) ☐ Not applicable	

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Characteristics of DCs	☐ Number of DCs (please specify: _____) ☐ Average age (please specify: _____) ☐ Gender (please specify: _____ % female) ☐ School of graduation (please specify: _____) ☐ Years since graduation (please specify: _____) ☐ Average years in practice ☐ Department affiliation (please specify: _____)	
Departmental affiliation of medical setting	☐ Internal medicine ☐ Family medicine ☐ Physical medicine/rehabilitation ☐ Integrative medicine ☐ Orthopedics ☐ Pain medicine ☐ Other (please specify: _____) ☐ Not applicable	
Study design	☐ Systematic review ☐ Observational/Cross-sectional ☐ Observational/Longitudinal ☐ Qualitative ☐ Mixed-methods	

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	☐ Randomized control trial ☐ Other (please specify: _____)	
Description of patient population	Indicate the proportion of patients seen for the following conditions: ☐ Back pain (please specify: _____%) ☐ Neck pain (please specify: _____%) ☐ Headache (please specify: _____%) ☐ Other (please specify: _____%) ☐ Not Reported	
Clinical intervention: Chiropractic care		
Patient Self-care	☐ Patient Education ☐ Exercise Instruction	
Manual Therapies	☐ Spinal Manipulation ☐ Spinal Mobilization ☐ Manual Traction ☐ Soft-tissue Therapy	
Therapeutic Modalities	☐ Cold/ice ☐ Heat ☐ Electrical Simulation ☐ Ultrasound	

	☐ Acupuncture	
Other	☐ Nutritional Supplements ☐ Orthopedic Supports	

Implementation strategies		
Description on implementation strategies	Which best characterizes the description of implementation strategies in manuscript? ☐ No description ☐ Informal ☐ Formal	
ERIC taxonomy	If formal/informal description of implementation strategies is available, which of the 79 implementation strategies listed below were described?	
Evaluative and iterative strategies	☐ Assess for readiness and identify barriers and facilitators ☐ Audit and provide feedback ☐ Conduct cyclical small tests of change ☐ Conduct local needs assessment ☐ Develop a formal implementation blueprint ☐ Develop and implement tools for quality monitoring ☐ Develop and organize quality monitoring systems ☐ Obtain and use patient s/consumers and family feedback	

	☐ Purposefully reexamine the implementation ☐ Stage implementation scale up	
Interactive assistance	☐ Centralize technical assistance ☐ Facilitation ☐ Provide clinical supervision ☐ Provide local technical assistance	
Adapt and tailor to context	☐ Promote adaptability ☐ Tailor strategies ☐ Use data experts ☐ Use data warehousing techniques	
Develop stakeholder interrelationships	☐ Build a coalition ☐ Capture and share local knowledge ☐ Conduct local consensus discussions ☐ Develop academic partnerships ☐ Develop an implementation glossary ☐ Identify and prepare champions ☐ Identify early adopters ☐ Inform local opinion leaders ☐ Involve executive boards ☐ Model and stimulate change ☐ Obtain formal commitments ☐ Organize clinician implementation team meetings ☐ Promote network weaving ☐ Recruit, designate, and train for leadership	

	☐ Use advisory boards and workgroups ☐ Use an implementation advisor ☐ Visit other sites	
Train and educate stakeholders	☐ Conduct educational meetings ☐ Conduct educational outreach visits ☐ Conduct ongoing training ☐ Create a learning collaborative ☐ Develop educational materials ☐ Distribute educational materials ☐ Make training dynamic ☐ Provide ongoing consultation ☐ Shadow other experts ☐ Use train-the-trainer strategies ☐ Work with educational institutions	
Support clinicians	☐ Create new clinical teams ☐ Develop resource sharing agreements ☐ Facilitate relay of clinical data to providers ☐ Remind clinicians ☐ Revise professional roles	
Engage consumers	☐ Increase demand ☐ Intervene with patients/consumers to enhance uptake and adherence ☐ Involve patients/consumers and family members ☐ Prepare patients/consumers to be active participants	

	☐ Use mass media	
Utilize financial strategies	☐ Access new funding ☐ Alter incentive/allowance structures ☐ Alter patient/consumer fees ☐ Develop disincentives ☐ Fund and contract for the clinical innovation ☐ Make billing easier ☐ Place innovation on fee for service lists/formularies ☐ Use capitated payments ☐ Use other payment schemes	
Change infrastructure	☐ Change accreditation or membership requirements ☐ Change liability laws ☐ Change physical structure and equipment ☐ Change record systems ☐ Change service sites ☐ Create or change credentialing and/or licensure standards ☐ Mandate change ☐ Start a dissemination organization	

Outcome measurement		
Implementation outcomes	☐ Acceptability ☐ Adoption ☐ Appropriateness ☐ Feasibility ☐ Fidelity ☐ Implementation Cost ☐ Penetration ☐ Sustainability	
Clinical outcomes	☐ Pain intensity ☐ Physical functioning ☐ Health-related quality of life ☐ Global improvement ☐ Patient satisfaction ☐ Adverse events	

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Online Supplementary Appendix 4. Extraction guide

Clinical intervention: Chiropractic care		
Clinical Intervention	**Treatment**	**Description**
Components of chiropractic care[3, 9, 10]	Spinal manipulation	Manual therapy applied to the spine that involves a high velocity, low amplitude impulse or thrust applied at or near the end of a joint's passive range of motion.
	Soft-tissue therapy	Refers to active or passive manual therapies in which soft tissues (muscles, tendons, or ligaments) are actively engaged, e.g., myofascial release, muscle energy technique, or are passively pressed and kneaded by hand or with mechanical devices, e.g., massage.
	Patient education	A process to enable individuals to make informed decisions about their personal health-related behavior, e.g., Pamphlets, books, videos, neck schools, discussion with healthcare providers. Content may include general back pain information, neuroscience of pain, instruction in ergonomics, principles of self-relaxation/CBT, etc.
	Nutritional supplements	A product intended to supplement the diet, taken by mouth, containing one or more dietary ingredients, e.g., vitamins, minerals, herbs or other botanicals, amino acids, enzymes, tissues from organs or glands, or extracts of these.
	Exercise instruction and prescription	Exercise refers to any series of movements with the aim of training or developing the body by routine practice or as physical training to promote good physical health. Exercise therapy includes a wide variety of techniques common for the treatment and rehabilitation of neck pain, e.g., Strengthening, flexibility, stretching/range of motion
	Cold/Ice	Physico-chemical modalities used to create a thermal effect, such as cold at the skin level, affecting structures beneath the skin.

Heat	Physico-chemical modalities used to create a thermal effect, such as heat at the skin level, affecting structures beneath the skin.
Mobilization/ Manual traction	Manual treatment applied to the spine or joints of the upper or lower extremity that incorporates a low velocity and small or large amplitude oscillatory movement, within a joint's passive range of motion.
Orthopedic supports	Functional assistive devices intended to align, support or otherwise indirectly facilitate function in the affected region, e.g., shoe orthotics, taping, braces.
Electrical simulation	Electrical muscle stimulation transmits electrical impulses to muscles via electrodes placed superficially on the skin.
Ultrasound	Ultrasound is an oscillating sound pressure wave affecting structures beneath the skin surface.
Acupuncture	A therapeutic technique that utilizes a thin metal needle to puncture the skin and stimulate specific points. Various acupuncture techniques exist, as well as the use of other types of stimulation in combination with or instead of a needle. Acupuncture interventions include body needling, moxibustion, electroacupuncture, laser acupuncture, microsystem acupuncture and acupressure.

Implementation strategies: ERIC taxonomy[14-16]

ERIC domain	Implementation strategy	Description
Use evaluative and iterative strategies	Assess for readiness and identify barriers and facilitators	Assess various aspects of an organization to determine its degree of readiness to implement, barriers that may impede implementation, and strengths that can be used in the implementation effort.
	Audit and provide feedback	Collect and summarize clinical performance data over a specified time period and give it to clinicians and administrators to monitor, evaluate, and modify provider behavior.

Conduct cyclical small tests of change	Implement changes in a cyclical fashion using small tests of change before taking changes system-wide. Tests of change benefit from systematic measurement, and results of the tests of change are studied for insights on how to do better. This process continues serially over time, and refinement is added with each cycle.
Conduct local needs assessment	Collect and analyze data related to the need for the innovation.
Develop a formal implementation blueprint	Develop a formal implementation blueprint that includes all goals and strategies. The blueprint should include the following: 1) aim/purpose of the implementation; 2) scope of the change (*e.g.*, what organizational units are affected); 3) timeframe and milestones; and 4) appropriate performance/progress measures. Use and update this plan to guide the implementation effort over time.
Develop and implement tools for quality monitoring	Develop, test, and introduce into quality-monitoring systems the right input—the appropriate language, protocols, algorithms, standards, and measures (of processes, patient/consumer outcomes, and implementation outcomes) that are often specific to the innovation being implemented.
Develop and organize quality monitoring systems	Develop and organize systems and procedures that monitor clinical processes and/or outcomes for the purpose of quality assurance and improvement.
Obtain and use patients/consumers and family feedback	Develop strategies to increase patient/consumer and family feedback on the implementation effort.
Purposely reexamine the implementation	Monitor progress and adjust clinical practices and implementation strategies to continuously improve the quality of care.
Stage implementation scale up	Phase implementation efforts by starting with small pilots or demonstration projects and gradually move to a system wide rollout.

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Provide interactive assistance	Centralize technical assistance	Develop and use a centralized system to deliver technical assistance focused on implementation issues.
	Facilitation	A process of interactive problem solving and support that occurs in a context of a recognized need for improvement and a supportive interpersonal relationship.
	Provide clinical supervision	Provide clinicians with ongoing supervision focusing on the innovation. Provide training for clinical supervisors who will supervise clinicians who provide the innovation.
	Provide local technical assistance	Develop and use a system to deliver technical assistance focused on implementation issues using local personnel.
Adapt and tailor to context	Promote adaptability	Identify the ways a clinical innovation can be tailored to meet local needs and clarify which elements of the innovation must be maintained to preserve fidelity.
	Tailor strategies	Tailor the implementation strategies to address barriers and leverage facilitators that were identified through earlier data collection.
	Use data experts	Involve, hire, and/or consult experts to inform management on the use of data generated by implementation efforts.
	Use data warehousing techniques	Integrate clinical records across facilities and organizations to facilitate implementation across systems.
Develop stakeholder inter-relationships	Build a coalition	Recruit and cultivate relationships with partners in the implementation effort.
	Capture and share local knowledge	Capture local knowledge from implementation sites on how implementers and clinicians made something work in their setting and then share it with other sites.
	Conduct local consensus discussions	Include local providers and other stakeholders in discussions that address whether the chosen problem is important and whether the clinical innovation to address it is appropriate.
	Develop academic partnerships	Partner with a university or academic unit for the purposes of shared training and bringing research skills to an implementation project.

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Develop an implementation glossary	Develop and distribute a list of terms describing the innovation, implementation, and stakeholders in the organizational change.
Identify and prepare champions	Identify and prepare individuals who dedicate themselves to supporting, marketing, and driving through an implementation, overcoming indifference or resistance that the intervention may provoke in an organization.
Identify early adopters	Identify early adopters at the local site to learn from their experiences with the practice innovation.
Inform local opinion leaders	Inform providers identified by colleagues as opinion leaders or "educationally influential" about the clinical innovation in the hopes that they will influence colleagues to adopt it.
Involve executive boards	Involve existing governing structures (*e.g.*, boards of directors, medical staff boards of governance) in the implementation effort, including the review of data on implementation processes.
Model and simulate change	Model or simulate the change that will be implemented prior to implementation.
Obtain formal commitments	Obtain written commitments from key partners that state what they will do to implement the innovation.
Organize clinician implementation team meetings	Develop and support teams of clinicians who are implementing the innovation and give them protected time to reflect on the implementation effort, share lessons learned, and support one another's learning.
Promote network weaving	Identify and build on existing high-quality working relationships and networks within and outside the organization, organizational units, teams, etc. to promote information sharing, collaborative problem-solving, and a shared vision/goal related to implementing the innovation.
Recruit, designate, and train for leadership	Recruit, designate, and train leaders for the change effort.
Use advisory boards and workgroups	Create and engage a formal group of multiple kinds of stakeholders to provide input and advice on implementation efforts and to elicit recommendations for improvements.

	Use an implementation advisor	Seek guidance from experts in implementation.
	Visit other sites	Visit sites where a similar implementation effort has been considered successful.
Train and educate stakeholders	Conduct educational meetings	Hold meetings targeted toward different stakeholder groups (*e.g.*, providers, administrators, other organizational stakeholders, and community, patient/consumer, and family stakeholders) to teach them about the clinical innovation.
	Conduct educational outreach visits	Have a trained person meet with providers in their practice settings to educate providers about the clinical innovation with the intent of changing the provider's practice.
	Conduct ongoing training	Plan for and conduct training in the clinical innovation in an ongoing way.
	Create a learning collaborative	Facilitate the formation of groups of providers or provider organizations and foster a collaborative learning environment to improve implementation of the clinical innovation.
	Develop educational materials	Develop and format manuals, toolkits, and other supporting materials in ways that make it easier for stakeholders to learn about the innovation and for clinicians to learn how to deliver the clinical innovation.
	Distribute educational materials	Distribute educational materials (including guidelines, manuals, and toolkits) in person, by mail, and/or electronically.
	Make training dynamic	Vary the information delivery methods to cater to different learning styles and work contexts, and shape the training in the innovation to be interactive.
	Provide ongoing consultation	Provide ongoing consultation with one or more experts in the strategies used to support implementing the innovation.
	Shadow other experts	Provide ways for key individuals to directly observe experienced people engage with or use the targeted practice change/innovation.

	Use train-the-trainer strategies	Train designated clinicians or organizations to train others in the clinical innovation.
	Work with educational institutions	Encourage educational institutions to train clinicians in the innovation.
Support clinicians	Create new clinical teams	
		Change who serves on the clinical team, adding different disciplines and different skills to make it more likely that the clinical innovation is delivered (or is more successfully delivered).
	Develop resource sharing agreements	Develop partnerships with organizations that have resources needed to implement the innovation.
	Facilitate relay of clinical data to providers	Provide as close to real-time data as possible about key measures of process/outcomes using integrated modes/channels of communication in a way that promotes use of the targeted innovation.
	Remind clinicians	Develop reminder systems designed to help clinicians to recall information and/or prompt them to use the clinical innovation.
	Revise professional roles	Shift and revise roles among professionals who provide care, and redesign job characteristics.
Engage consumers	Increase demand	Attempt to influence the market for the clinical innovation to increase competition intensity and to increase the maturity of the market for the clinical innovation.
	Intervene with patients/consumers to enhance uptake and adherence	Develop strategies with patients to encourage and problem solve around adherence.
	Involve patients/consumers and family members	Engage or include patients/consumers and families in the implementation effort.
	Prepare patients/consumers to be active participants	Prepare patients/consumers to be active in their care, to ask questions, and specifically to inquire about care guidelines, the evidence behind clinical decisions, or about available evidence-supported treatments.

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	Use mass media	Use media to reach large numbers of people to spread the word about the clinical innovation.
Use financial strategies	Access new funding	Access new or existing money to facilitate the implementation.
	Alter incentive/ allowance structures	Work to incentivize the adoption and implementation of the clinical innovation.
	Alter patient/consumer fees	Create fee structures where patients/consumers pay less for preferred treatments (the clinical innovation) and more for less-preferred treatments.
	Develop disincentives	Provide financial disincentives for failure to implement or use the clinical innovations.
	Fund and contract for the clinical innovation	Governments and other payers of services issue requests for proposals to deliver the innovation, use contracting processes to motivate providers to deliver the clinical innovation, and develop new funding formulas that make it more likely that providers will deliver the innovation.
	Make billing easier	Make it easier to bill for the clinical innovation.
	Place innovation on fee for service lists/formularies	Work to place the clinical innovation on lists of actions for which providers can be reimbursed (*e.g.*, a drug is placed on a formulary, a procedure is now reimbursable).
	Use capitated payments	Pay providers or care systems a set amount per patient/consumer for delivering clinical care.
	Use other payment schemes	Introduce payment approaches (in a catch-all category).
Change infrastructure	Change accreditation or membership requirements	Strive to alter accreditation standards so that they require or encourage use of the clinical innovation. Work to alter membership organization requirements so that those who want to affiliate with the organization are encouraged or required to use the clinical innovation.
	Change liability laws	Participate in liability reform efforts that make clinicians more willing to deliver the clinical innovation.
	Change physical structure and equipment	Evaluate current configurations and adapt, as needed, the physical structure and/or equipment (*e.g.*, changing the layout of a room, adding equipment) to best accommodate the targeted innovation.

Change record systems	Change records systems to allow better assessment of implementation or clinical outcomes.
Change service sites	Change the location of clinical service sites to increase access.
Create or change credentialing and/or licensure standards	Create an organization that certifies clinicians in the innovation or encourage an existing organization to do so. Change governmental professional certification or licensure requirements to include delivering the innovation. Work to alter continuing education requirements to shape professional practice toward the innovation.
Mandate change	Have leadership declare the priority of the innovation and their determination to have it implemented.
Start a dissemination organization	Identify or start a separate organization that is responsible for disseminating the clinical innovation. It could be a for-profit or non-profit organization.

Outcome measurement: Implementation and clinical outcomes

Type of outcome	Name of outcome (Synonyms)	Definition
Implementation Outcomes[17]	Acceptability (satisfaction with various aspects of the innovation, e.g. content, complexity, comfort, delivery, and credibility)	Acceptability is the perception among implementation stakeholders that a given treatment, service, practice, or innovation is agreeable, palatable, or satisfactory.
	Adoption (uptake; utilization; initial implementation; intention to try)	Adoption is defined as the intention, initial decision, or action to try or employ an innovation or evidence-based practice.
	Appropriateness; (perceived fit; relevance; compatibility; suitability; usefulness; practicability)	Appropriateness is the perceived fit, relevance, or compatibility of the innovation or evidence-based practice for a given practice setting, provider, or consumer; and/or perceived fit of the innovation to address a particular issue or problem.

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	Feasibility (actual fit or utility; suitability for everyday use; practicability)	Feasibility is defined as the extent to which a new treatment, or an innovation, can be successfully used or carried out within a given agency or setting.
	Fidelity delivered as intended; adherence; integrity; quality of program delivery	Fidelity is defined as the degree to which an intervention was implemented as it was prescribed in the original protocol or as it was intended by the program developers.
	Cost (marginal cost; cost-effectiveness; cost-benefit)	Cost (incremental or implementation cost) is defined as the cost impact of an implementation effort. Implementation costs vary according to three components.
	Penetration (reach; level of institutionalization? Spread? Service access?)	Penetration is defined as the integration of a practice within a service setting and its subsystems.
	Sustainability (maintenance; continuation; durability; incorporation; integration; institutionalization; sustained use)	Sustainability is defined as the extent to which a newly implemented treatment is maintained or institutionalized within a service setting's ongoing, stable operations.
Clinical outcomes[18, 19]	Pain intensity	Impact on how much a patient hurts, reflecting the overall magnitude of the pain experience, e.g., 11-point numerical rating scale, Brief Pain Inventory.
	Physical function	Impact on patient's ability to carry out daily physical activities required to meet basic needs, ranging from self-care to more complex activities that require a combination of skills, e.g., Roland Morris Disability Questionnaire, Oswestry Disability Index.

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Quality of life	Impact on physical, psychological and social domains of health, seen as distinct areas that are influenced by a person's experiences, beliefs, expectations and perceptions; Short Form-36.
Global improvement	An evaluation by clinician or patient of all aspects of patients' health and if there has been an improvement or decline in clinical status, e.g., Clinical Global Impression Scale, Patient Global Impression of Change Scale.
Patient satisfaction	Impact on patient's satisfaction in performing usual social roles and activities (including family and work); Impact on patient's satisfaction with care received, including treatment and care providers, e.g., Client Satisfaction Questionnaire
Adverse events	Anticipated and unanticipated adverse events, e.g., worsening of condition, muscle spasm.

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