

Optimizing telehealth pain care after COVID-19

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"If you have ever thought of doing telehealth, now's the time to get started."

—Peter McGough, MD (Medical director of the University of Washington neighborhood clinics: KUOW/National Public Radio, 2020.)

1. Introduction

The COVID-19 pandemic has presented major challenges to pain care, as pain clinicians face severe restrictions in their ability to provide usual in-person assessments and treatments. COVID-19 has also exposed prepandemic problems in providing comprehensive pain care. Yet, despite this crisis, there have been encouraging developments for long-term delivery of pain services, most notably the explosive growth in the adoption of telehealth technology and clinical resourcefulness in its applications. Furthermore, the size and urgency of the COVID-19 pandemic has seen many cumbersome local, regional, and national health policy rules regarding the access, delivery, and reimbursement of telehealth temporarily waived. These changes have afforded an opportunity to develop new ways of operating and a glimpse of how life could be for pain services under a "new normal."⁸¹ Importantly, telehealth has the potential to transform pain management, particularly for those with complex pain care needs living remotely from pain facilities or in low-resource settings, removing barriers to multidisciplinary pain management delivered in a collaborative, interdisciplinary way—the optimal treatment approach for chronic pain.²¹

Pain researchers have provided timely reports of the available evidence for treatment modalities capable of being delivered remotely.^{25,81} However, the provision of pain services at local, regional, and national levels entails more

than a consideration of evidence for individual service components. A broader framework is needed. This topical review considers the value case for telehealth-based multidisciplinary pain management approaches, reviews available evidence, delineates obstacles, and proposes solutions across the domains of health systems, public health, and reimbursement policies. We should not turn back; rather, we should advance the potential gains of telehealth pain services. At the same time, it is imperative that we implement a research agenda evaluating outcomes, costs, and acceptability alongside these new clinical developments.

2. What is telehealth?

Telehealth is expansively defined as the use of technology (electronic information and telecommunication) to facilitate long-distance health care, health-related education, public health, and health administration.^{11,45} Available methods for the delivery of technology-enabled care currently include *synchronous* (eg, live videoconferencing), *asynchronous* (eg, store-and-forward transmission of photographs, images, vital signs, and video clips for later review), *mobile health (M-Health)* (eg, remote patient monitoring and patient-reported outcomes), and *electronic health (E-Health)* (eg, live or recorded educational presentations to geographically disparate groups of patients or healthcare professionals). Each method has the potential to fill specific gaps in pain management, offering unique promise for chronic pain management. In addition to research opportunities, these developments present important training imperatives as well.

2.1. Pain medicine by telehealth

Despite strong support for the value of telehealth across a range of medical disciplines and methodologies,^{7,13,16,29,30,52,55,61,79,88,93} recent recommendations for pain management during the COVID-19 crisis have identified only a time-limited role for synchronous delivery of telehealth care.¹⁹ Based on telehealth's demonstrated ability to improve access, collect and interpret health data, and provide educational consultative support for care by multiple medical disciplines, and considering the recent surge in implementation, there may be a case for a more permanent response beyond COVID-19.

Pain medicine clinicians can interview, observe, and counsel patients with chronic pain through audiovisual technologies. However, performing the physical examination remotely remains a vexing challenge. This is a crucial portion of accurate and thorough diagnostic evaluation of patients with chronic pain, needing to touch, press, palpate, and move patients. This challenge can be overcome, in part, by the presence of an on-site medical clinician seeking consultation, or with less easily

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accomplished instructional coaching by an attendant caregiver, but these may not always be available.⁹³

Telehealth peripherals (eg, electronic stethoscopes, teleophthalmoscopes, and video-otoscopes⁹³) are common assessment tools for remotely delivered primary health care. Pain assessment questionnaires, an established component of pain assessment,¹⁴ are similarly M-Health peripherals that we have successfully introduced before the telehealth visit through premailed, electronic health record (EHR) “patient portal”⁹⁷ or mobile devices.⁷⁶

A promising alternative to new patient assessment under COVID-19 restrictions has been trialed at our pain clinic (University of Washington [UW]). Medical providers conduct a familiarization telehealth interview to hear the patient history, collect identified additional treatment records, initiate pain neuroscience education, and set treatment expectations in preparation for that patient’s future in-person visit which is then scheduled by priority. This approach offers potential to begin a therapeutic relationship in advance of their future visit.

Follow-up visits can be conducted virtually, assuming no newly presenting pain problem, because established patients rarely require a hands-on physical examination. Patient history, review of systems (sent through our patient portal), and medications can be reconciled, and nondrug treatments reviewed. Difficulties with and adherence to treatments are discussed, laboratory and imaging studies reviewed, and if controlled substances are prescribed, the state’s prescription drug monitoring program can be queried. Urine drug testing, if necessary, can be performed at patients’ primary care site. Prescriptions can be electronically refilled, including controlled substances using “E-prescribing” dual authentication technology.^{33,54} When a new or exacerbated pain problem is identified, we ask patients to touch locations of musculoskeletal and/or visceral pain and directly visualize the skin and presence of edema. Movement can also be evaluated visually by telehealth by observing ability to sit-stand and heel-toe walk and query if pain is experienced during demonstrated range of motion of the extremities and spine. For established patients, we are able to identify whether they are at known baseline, or whether any new or worrisome findings are present.

Electronic consultations (E-consult), provider-to-provider communications within a shared EHR, have been introduced in larger health systems to improve access, convenience, timeliness, and costs of specialty care^{18,90} and seem best suited to support the primary care management of chronic diseases. Widespread implementation has been challenging, requiring significant institutional investment, leadership, and clinician incentives.⁸⁹ Because E-consultations are intended to serve as an alternative to comprehensive consultation, straightforward conditions and generalizable recommendations are most suitable (eg, drug dosages and diagnostic tests that may be appropriate). As such, successful deployment is described in those medical specialties with well-defined assessment and treatment pathways (eg, endocrinology, dermatology, and neurology). For example, an E-consult regarding a focal nerve impingement may support a potential role for a selective pain interventional procedure or assist preoperative medication management before elective surgery or postoperative opioid tapering. An E-consult may also help guide clinical decision-making for primary care providers when measures of widespread pain and symptom severity scores support a diagnosis of nociplastic pain (“central sensitization”). Pain medication dosing, drug–drug interactions, and adherence to opioid treatment guidelines and rules are other examples of potentially successful roles for E-consultation in chronic pain. For patients with more complex chronic pain

conditions, especially those who may require multidisciplinary pain management, E-consults may yet prove effective.^{48,82} If a physical examination is indicated, a primary care provider’s physical examination of a complex chronic pain condition is of value but not a substitute for one performed by a pain-trained physician.

Use of EHRs has proved useful for identifying patients with substance use disorder who seek opioids frequently and improperly from the emergency department (ED) with complaints of pain. In 2008, the ED Information Exchange system was introduced and subsequently deployed at all 90 EDs throughout Washington State, enabling the coordination of patient-specific multidisciplinary care plans for frequent ED users identified across the state. With direct connectivity to the state’s prescription drug monitoring system, ED providers access details of a patient’s statewide dispensed opioid prescriptions (eg, quantity, last fill dates, and prescribing providers) and ED Information Exchange reports on previous opioid overdose diagnoses. This telehealth approach to ED pain management also includes a coordinated care plan for the management of pain, which has demonstrated improved safety, provider satisfaction, and reduced costs.⁶⁸

2.2. Behavioral health pain management by telehealth

Behavioral health (BH) interventions are an integral aspect of multidisciplinary pain treatment.^{32,51} Of these interventions, cognitive-behavioral therapy (CBT)-based techniques are most common and widely supported for chronic pain management^{26,94} and are intended to augment patients’ nonpharmacological pain-coping strategies. Cognitive-behavioral therapy techniques include stress management (eg, diaphragmatic breathing and muscle relaxation), identifying and modifying unhelpful thoughts about pain, strategies for paced/gradual upgrading of physical activity to reduce pain flares and increase activity consistency, goal setting and structuring of daily routines to maintain behavioral activation, addressing comorbid problems with insomnia, and effective communication strategies around pain-related difficulties.^{71,86}

As with in-person treatment, CBT approaches are the most commonly used BH interventions by telehealth^{15,26} and generally demonstrate comparable efficacy to in-person treatment.¹⁵ Previous meta-analytic reviews have indicated small but statistically significant effects of CBT approaches for reducing pain, pain-related activity interference or disability, and mood disturbance, both for in-person treatment⁹⁴ and Internet-based platforms.^{26,66} Emerging evidence indicates BH approaches may facilitate reduced opioid use for chronic noncancer pain.²⁷ To date, few studies have determined differences in treatment acceptability and satisfaction between Internet and in-person treatment,²⁶ although greater attrition rates in some Internet-based interventions have been reported.^{15,46} In Internet-based interventions, lack of engagement with the therapy team may be improved with individual videoconferencing rather than self-directed Internet-only intervention,⁶⁶ a question for future research.

2.3. Physical therapy pain management by telehealth

Like traditional in-person care, telehealth by physical therapists involves patient-centered information exchange, examination, and multimodal interventions. The approach may be synchronous or asynchronous and blended with in-person care or performed by itself.⁶⁰ Although the evidence based on telehealth interventions provided by physical therapists is limited, early evidence suggests there is potential for effective and high-value

care.^{41,50} Best practices, most effective components, cost-effectiveness, and heterogeneity of the treatment effect for subgroups or chronic pain conditions still need to be established. Numerous pilot trials or in-progress clinical trials on this topic indicate more evidence is imminent.^{35,39,56,58,69}

Systematic reviews show that pain neuroscience education has small effects on pain intensity and function but more clinically meaningful impacts on fear and pain catastrophizing.^{92,95} Effectively addressing patients' beliefs about pain necessitates consistency in language and terminology used by medical providers and physical therapists.⁶⁴ Telehealth interventions may facilitate this consistency. Exercise is consistently associated with reduced pain and disability for multiple chronic pain conditions,^{34,42,80} and similar outcomes may be achieved through telehealth delivery.¹ Psychologically informed physical therapy incorporating behavioral strategies may augment these effects⁴³ and has been delivered by telephone or electronic methods in trials.^{3,9,10,73} Optimal methods for delivering telehealth interventions are unclear, but physical therapists may prefer videoconferencing to observe patients' movement.

Depending on patients' circumstances, community-based physical activity or mind–body practices, such as yoga and Tai Chi, can be incorporated within a pain management program in addition to, or instead of, exercise.⁸⁰ Several M-Health platforms and applications have been designed to facilitate and provide exercise and mind–body practices. The challenge for telehealth will be to successfully integrate physical activity or mind–body practices, medical, behavioral, and physical therapies, to replicate in-person multidisciplinary pain management.⁵¹

2.4. Pharmacy pain care by telehealth

Clinical pharmacists perform key pain management roles in both hospital and ambulatory care settings.^{37,78,87} Since the onset of the COVID-19 crisis, their role has been rapidly extended across a larger range of telehealth services.⁷⁷ At our institution (UW) pre-COVID, a pain management telehealth intervention was implemented in collaboration with state health agencies to directly address community primary care prescriber queries through an E-Health telephonic “hotline.”⁹¹ Calls are answered by a specialty-trained pain management pharmacist, supported by a pain medicine physician when needed. Most callers inquire about medication therapy options, clarification of pain management guidelines, and/or regulatory requirements regarding opioid medications.

In response to COVID-19 stay-at-home orders, rules regarding highly regulated controlled substance pain medications have been loosened. These rule changes have substantially eased the demands on prescribers and patients, such as allowing practitioners to issue prescriptions without in-person evaluation and extending the time from the date of signed emergency prescription to when a pharmacist physically receives the signed controlled substance prescription.⁶⁵ Rules now allow for emergency prescriptions to be faxed or scanned in lieu of a paper prescription if unable to send the original signed prescription. E-prescribing of controlled substances has been available in the United States for a decade, but this option was only infrequently used pre-COVID, despite recommendations.³³ E-prescribing directly to the pharmacy is an important means to reduce patient in-person interactions within healthcare settings and has been shown to improve medication safety in community settings.⁵⁴ Although the COVID-19 crisis has accelerated its implementation, the effectiveness, acceptability, and safety of e-prescribing still await proper evaluation (**Table 1**).

3. Coordinating multidisciplinary telehealth pain management

A key aspect of effective multidisciplinary care involves coordination of services by regular meetings attended by the various professionals involved.^{32,62} When treatment providers are not colocated physically, it remains critical that providers communicate electronically. Such meetings do have funding and resource implications, but this is not peculiar to the COVID-19 period, and it is likely to be a continuing issue after the pandemic subsides.

4. Telehealth: challenges then and now

4.1. Technology

With the advent of COVID-19, there have been global calls for the rapid adoption of telehealth technologies.⁹⁶ Despite substantial improvements in telehealth technology's quality, acceptability, and costs, challenges remain in areas of regulatory approval of devices, security compliance, compatibility and interoperability, and electronic medical record integration. Internet access and bandwidth also remain a barrier, especially in rural areas and among underserved populations.⁸ Approximately 39% of rural Americans lack access to high-speed broadband, compared with just 4% of urban Americans. Furthermore, Internet access in rural America is more expensive and slower, impacting the quality and reliability of connectivity for telehealth.⁷² These challenges are international; despite expected gains, similar patterns of uneven distribution of Internet technology are reported across most countries.¹² Increased demand during COVID-19 has stressed telecommunication systems, slowing upload and download speeds below usual standards.⁴⁷ Telehealth that serves the patient at home requires patient broadband access and access to device with camera, microphone, display, and speaker at minimum. Moreover, telehealth at home requires a level of comfort and skill in using the technology. Reports show a “digital divide” related to age and to socioeconomic status, indicating the need for additional preparation of patients.^{6,44,49,57}

Overcoming rural, age-related, and technology access disparities will be essential for general implementation of the new telehealth modalities, but currently available telephonic communication remains well suited as the standard of care for straightforward patient concerns, such as medication questions and call backs for laboratory and imaging results. But the use of telephonic technology in delivering multidisciplinary pain management involving discussions between the patient and clinicians is necessarily more complex and will require policies that strike a balance between recording sufficient detail for clinical notes without becoming too time consuming for the clinicians when determining levels of reimbursement.

Pre-COVID, telehealth typically required complicated and obtuse administrative, physical, technical safeguards, privacy, and business agreements between the user and vendor.³⁶ During COVID, government agencies in countries, such as the United States, Australia, and India, have waived enforcement discretion with a “good faith” provision of telehealth service, allowing the use of a range of any non–public-facing audio or video technology such as telephone, Skype, and FaceTime. Nonsecure email and texting are both temporarily permitted.^{4,36} However, given limited access to video teleconferencing for many, maintaining at least telephone-based services, when effective, may be justified on the basis of equity of access to services and cost.

Table 1

Proposed research, education, and policy agenda for telehealth-delivered multidisciplinary pain management.

| | Research | Education | Policy |
|--------------------------------|--|---|---|
| Access/equity | <p>Assess barriers and facilitators of implementation and access to multidisciplinary pain care delivered by telehealth.</p> <p>Identify disparities in access to telehealth-delivered multidisciplinary pain care.</p> | <p>Support continued innovative development and use of E-Health methodologies to extend access for pain-related science, clinical practice curriculum, and pain specialist consultations for trainees and providers.</p> <p>Construct patient-friendly instructions for optimal access to and use of telehealth-delivered multidimensional pain care.</p> | <p>Establish uniform coverage and payment parity reimbursement policies for all payor types across a nation.</p> <p>Review and revise specific laws and regulations that create barriers to telehealth care (eg, requiring preapproval, capping visits or number, and amounts of copayments).</p> <p>Increase access to broadband in rural areas and subsidize access to broadband and equipment in urban and underserved areas/populations.</p> <p>Modify telehealth regulatory policies regarding:</p> <ul style="list-style-type: none"> Billing codes: Parity reimbursement for telehealth and in-person visits; maintain increased payments for telephone visits. Provider type and location: All provider types and clinical sites eligible for the provision of telehealth care. Patient location: Uniform eligibility for telehealth services across rural and urban settings and when feasible directly into the patient home. Mode of care: Eliminate video requirement for certain telephone evaluation and management services. Patient consent: Allow verbal consent to care, followed by electronic or mailed signed consents. <p>Promote uniformity in national level licensure regulation regarding requirements for interprofessional pain providers and scope of practice for telehealth services.</p> |
| Safety/security | <p>Evaluate for adverse events (eg, health and privacy) associated with use of telehealth for multidisciplinary pain care.</p> <p>Evaluate adherence to national guidelines (eg, safe opioid prescribing and risk assessment) associated with telehealth-delivered pain care.</p> | <p>Develop and implement educational activities for trainees and providers to ensure patient privacy and secure transfer of patient data.</p> | <p>Develop and maintain consistent security requirements that will protect patients without impeding treatment.</p> <p>Develop standard patient privacy safeguards to prevent unintended use or disclosure of personal health information.</p> |
| Outcomes/effect | <p>Evaluate the impact of telehealth-delivered multidisciplinary pain management on patient-reported outcomes (eg, pain intensity, mood, sleep, and quality of life), functional status, and healthcare utilization compared with standard in-person care.</p> <p>Determine optimal telehealth modalities, timing, sequence, and dose of care.</p> <p>Compare overall costs and financial sustainability of telehealth-delivered multidisciplinary pain care with in-person pain care.</p> | <p>Establish and disseminate interprofessional core competencies in pain management delivery by telehealth.</p> <p>Develop and disseminate accessible training for trainees and providers in the core competencies for pain self-management interventions.</p> <p>Incorporate telehealth technology competencies and remote care skills training in prelicensure and postlicensure health professional curricula across health science disciplines.</p> | <p>Modify telehealth regulatory policies regarding reimbursement for coordinated multidisciplinary care and provider types (ie, allow all licensed healthcare providers to conduct and bill for care through telehealth when clinically and technically appropriate).</p> <p>Incentivize E-prescribing by telehealth and recognize pharmacists as providers.</p> <p>Reimburse specified E-Health services that improve direct-to-patient Internet-based patient education.</p> |
| Quality assurance/satisfaction | <p>Use a Delphi approach to prioritize quality of care benchmarks through focus groups of relevant stakeholders (providers, patients, policymakers, and payors).</p> <p>Evaluate satisfaction and engagement with telehealth-delivered multidisciplinary pain care delivered by telehealth for patients, caregivers, and healthcare providers.</p> | <p>Develop and evaluate educational activities (eg, didactics, grand rounds, and case consultations) that promote interprofessional, collaborative care.</p> | <p>Develop novel multipayor reimbursement policies to facilitate team consultations, synchronous and asynchronous methods, and high-value multidisciplinary pain care.</p> <p>Delineate benchmarks for quality of care of multidisciplinary pain care delivered by telehealth.</p> |

4.2. Reimbursement

Challenges for implementing telehealth services were daunting and complex before COVID-19, but it is also true that several countries have been implementing different forms (initially telephone based) of telehealth for many years, and they provide useful exemplars for those countries that have come to this form of care relatively recently. Perhaps the best examples can be found in northern Europe/United Kingdom and the Nordic countries.^{63,98} However, these countries also have national health service systems funded by their respective governments, where point of access for patients is free. A recurring obstacle in countries, such as the United States and Australia, where point of access in primary and tertiary care is often provided on a fee-for-service basis (totally or partially), has been a wide variation across different health insurance plans. Before COVID-19, regulatory restrictions in many countries limited reimbursement for services for selected diagnoses and by selected provider types and clinical setting, specified patients in rural locations, and disallowed telehealth visits directly into the patient home, including telephone alone. During the COVID-19 emergency, many of these restrictions have been lifted, primarily to limit patients' exposure to the virus. The Australian Government, for example, highlighted that newly funded items are general in nature and have no relation to diagnosing, treating, or suspecting COVID-19. However, in both the United States and Australia, there are specified end dates for these arrangements, raising important questions for the future (see Australian Government web site⁴).

Unfortunately, without knowledge of how long the COVID-19 emergency will persist, and which of the "during COVID" policies and regulations will be maintained or rescinded, anecdotal evidence suggests that organizations are fearful of devoting effort and funding to developing telehealth systems and services that may not be feasible, legal, or affordable once the pandemic has eased. Thus, it is imperative that those engaged in providing telehealth-based pain management, directly or indirectly, will need to establish their value and effectiveness.⁶²

5. Patient engagement, adherence, and satisfaction with telehealth

The viability of long-term telehealth-based pain management will also depend on ensuring patient engagement in and satisfaction with treatment. As noted previously, there is evidence that patients who are less actively engaged in telehealth may be more susceptible to attrition, and many online programs that are solely guided by automated systems have often suffered from poor adherence and attrition.^{15,25} Previous studies of patient experiences in navigating various medical systems to attain pain management services also highlight common sources of frustration, including a lack of coordination among providers, long wait times in getting responses from providers or providers' offices, and practical barriers including inconsistent or difficult access to services or burdensome transportation to and from treatment appointments.^{23,24,70} Effectively fostering patient engagement necessitates regular communication between providers and patients, and their significant others, such as families or employers, so that treatment plans are translated to settings outside of the clinical environment and concerns or frustrations are identified and addressed in a timely manner. In many multidisciplinary treatment programs, these communications have been led by nurses or care coordinators^{32,83} or rehabilitation providers.²⁰ Telehealth-based pain management

programs will likely benefit from the involvement of these same designated professionals.

6. Advancing telehealth-delivered pain care through research, education, and policy change

The COVID-19 pandemic presents a unique opportunity to further develop telehealth as a viable means of providing accessible, safe, effective, and high-quality multidisciplinary pain care. To this end, in **Table 1**, we propose research, education, and policy agendas to address key aspects of telehealth-delivered multidisciplinary pain care. Key elements of these proposals are as follows.

6.1. Access/equity

Research initiatives focused on identification of barriers and facilitators to the implementation of telehealth technology and coordinated interdisciplinary care at the patient, provider, and system levels have the potential to considerably improve the effectiveness and dissemination of telehealth. For example, education initiatives might focus on improving digital literacy and policy initiatives on subsidizing broadband and electronic equipment necessary for telehealth visits.

Furthermore, the COVID-19 pandemic has tangibly impacted exposure to clinical training and emphasized the need for continued development and provision of E-Health methodologies to extend access for pain-related science, clinical practice curriculum, and pain specialist consultations for trainees and providers. For example, the UW's TelePain program⁶⁷—weekly videoconference sessions that incorporate competency-based pain education delivered by a panel of multidisciplinary pain specialists to address gaps in training and patient case presentations to provide necessary consultation for high-risk patients—quickly responded to COVID-19 pain care restrictions by creating a didactic presentation packed with resources for community providers to support their virtual care of patients with complex chronic pain. Furthermore, trainees at all levels (medical students, residents, and fellows), missing critical in-person clinical training, have leveraged this existing education infrastructure, gaining evidence-based and case-based education remotely.

6.2. Safety/security

Ensuring patient safety and privacy during telehealth-delivered multidisciplinary pain care will be an important focus given the lack of opportunity for hands-on physical examinations and electronic sharing of personal health information. Therefore, understanding the prevalence and impact of adverse events will be important for facilitating the widespread adoption of telehealth for pain management. Furthermore, a systematic evaluation of adherence to national guidelines and state-specific rules would ensure that appropriate risk assessment (eg, risk for opioid misuse), screening for relevant comorbid conditions (eg, depression and posttraumatic stress disorder), and appropriate prescribing practices (eg, consulting prescription drug monitoring programs and nonopioid prescriptions for chronic pain) are being conducted appropriately in the context of telehealth visits. Finally, continued review and adaptation of security, privacy, and consent policies, especially in light of changing technology, could ultimately serve to maintain patient protections without impeding treatment.

6.3. Outcomes/effect

A crucial next step in supporting the broader use of telehealth is to examine the relative effectiveness of telehealth-delivered multidisciplinary pain care compared with standard in-person pain care.²⁵ As accepted with in-person pain management, patient assessment would include not only pain reports but broader psychosocial functions as well (eg, pain interference, function, mood, and sleep) to facilitate evaluations and inform treatment options.^{14,32,59} M-Health technology (eg, web-based questionnaires completed at regular intervals and electronic diaries for more granular information)⁷⁴ can be incorporated into the telehealth clinical flow to seamlessly capture these outcomes over time. Wearable user interfaces (eg, accelerometers and mobile phones)⁷⁴ can also be used to track changes in physical activity and sleep.

Using adaptive trial designs, specific telehealth modalities, and the optimal timing, sequence and dose of multidisciplinary pain care components can be determined to maximize patient benefit and efficiency. Finally, it will be necessary to conduct comparative cost-effectiveness studies to determine financial sustainability of telehealth-delivered multidisciplinary pain care in the short term and long term.

Educational initiatives to improve outcomes may include continued use and enhanced engagement in provider-to-provider tele-mentoring, such as Extension for Community Healthcare Outcomes⁵³ and UW's TelePain programs,^{67,84} which were implemented to support community providers over a decade ago. The value of pain management telementoring programs is supported by several studies, with demonstrations of increased provider knowledge and/or confidence,^{2,5,31,53,67} improved communication between patients and providers,^{5,17} greater guideline adherence,² and cost benefits relative to specialty clinic visits.⁸⁵ Systemic changes (eg, leadership buy-in and modified clinic schedules) that increase the feasibility of regular participation in telementoring may be necessary.^{29,75} Another E-learning approach for providing structured training and mentored practice of psychologically informed methods for providers to enhance pain self-management by patients with chronic pain involves online webinar-style interactive sessions with skills practice required between sessions.²² Competency in core skills (eg, explaining chronic pain and teaching activity pacing to a patient) is evaluated. Sessions can be conducted online in small groups or in-person with larger groups. The use of a competency-based approach enables the mentors to ensure that a specified standard of performance is achieved by the participants.⁴⁰

6.4. Quality assurance/satisfaction

Benchmarks for quality of multidisciplinary care delivered by telehealth will need to be established. For example, a Delphi approach may be used, capturing actionable information through focus groups with relevant stakeholders (eg, patients, providers, payors, and policymakers) to prioritize quality of care benchmarks. Another crucial step will be to evaluate and compare patient and provider satisfaction and engagement with telehealth-delivered multidisciplinary care and standard in-person pain care.⁸²

7. Optimizing multidisciplinary telehealth pain care: vision for a new normal

Bringing together patients with a team of multidisciplinary pain clinicians to provide coordinated, collaborative, and concurrent

pain care remains a challenge because of a scarcity of single-center multidisciplinary pain management programs, long wait times, large geographic distances, and a range of well-documented healthcare policy and reimbursement barriers.^{28,38} COVID-19 has demonstrated the scope and speed at which change can happen when necessary.

We have glimpsed a future where the multidisciplinary care team can connect, deliberate, communicate with each other, and, when necessary do so simultaneously with patients, families, and communities, support knowledge-networks hundreds, even thousands of miles away. COVID-19 has illustrated that this outcome will require not just new technologies but also training and support for health professionals as we adapt to new ways of interacting with our patients, preparation of patients, research, and the rules governing the delivery and funding of these services (Table 1).

Conflict of interest statement

J.A. Sturgeon is a scientific advisory board member for TribeRx. All other authors have no potential conflicts of interest to disclose.

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