

# Pain Management in the Time of COVID-19



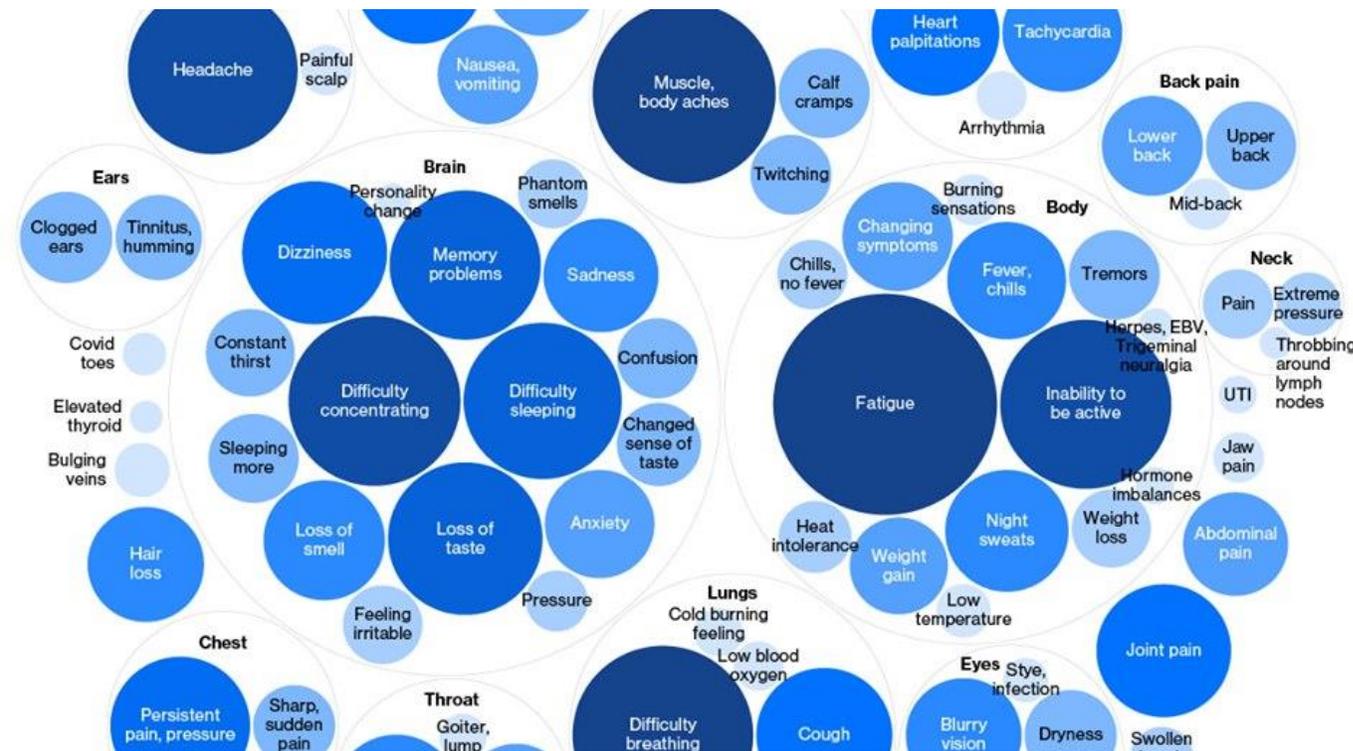
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# COVID-19 and Persistent Pain

- Many people with persistent pain are at increased risk of COVID-19 infection because they are elderly and/or have comorbidities (*Shanthanna et al, 2020; Rhodes et al, 2020*)
- Pain and fatigue are some of the presenting symptoms of Covid-19.



- Covid related ill-health, shielding or social distancing risks:
  - loneliness and social isolation (*Rhodes et al, 2020; Oliveira et al, 2015*).
  - disruption to important and meaningful activities (*Rhodes et al, 2020; Oliveira et al., 2015*).
  - loss of opportunity for physical activity and recourse to usual adaptive coping strategies (*Rhodes et al, 2020*).
  - strained relationships (*Rhodes et al, 2020*).
- Which is likely to result in increased pain, depression, anxiety and pain related difficulties (*Rhodes et al., 2020; Oliveira et al., 2015*).



# Covid 19 and Pain Services

- Lack of and/or reduced access to assessment and treatment due to reallocation of resources, reduction in services and absent/limited in-person provision (*Shanthanna et al, 2020; Rhodes et al, 2020*).
- Challenges in relation to safe provision of pain medication and urgent and semi-urgent procedures.



# How are Pain Services Adapting?

- One-to-one:
  - Telephone consultations.
  - Synchronous video consultation - live two-way audiovisual link between a service user and a HCP using a platform e.g. Attend Anywhere™ or Zoom™.
    - Safe, effective, convenient and acceptable to patients and staff (*Greenhalgh et al., 2018*).
  - E-prescribing.
  - Limited in-person consultations and procedures.



- Self-directed web-based resources (*Eccleston et al, 2020; Shanthanna et al, 2020*).
- Treatments delivered via the internet based on CBT and ACT are efficacious (*Buhrman et al., 2016; Martorella et al, 2017; Paganini et al., 2019*), with small to medium effect sizes for pain and other outcomes.
- Web based interventions have tended to have high drop-out rates (*Eccleston et al., 2014; Macea et al., 2010*) however this has been less of an issue of late (*Buhrman et al., 2016*).
  - Different methods have been adopted in order to engage patients however it is unclear how effective these methods are (*Buhrman et al., 2016*).
- The amount of therapist contact, as well as a clear treatment time frame, seems to be important to patients' acceptability, attrition and outcomes from treatment (*Gentili et al, 2020*).



# Choose and use with care

Most digital health interventions developed within industry lack:

- a theoretical or evidence-based framework (*Gentili et al, 2020*).
- evidence-based content (*Gentili et al, 2020*).
- involvement of HCP and people with lived experience.
- rigorous testing for efficacy on pain-related health outcomes (*Gentili et al, 2020*).

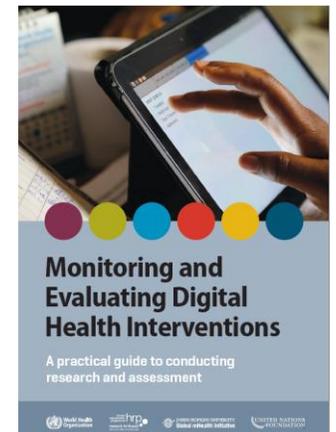
Interventions developed in academia may be theory driven but lack:

- user friendliness.
- are commonly technically outdated by the time they are implemented in regular care, if they ever are (*Gentili et al, 2020*).

(*Murray et al., 2016; Zanaboni et al., 2018; Kolasa et al., 2020;*

<https://www.gov.uk/government/collections/evaluating-digital-health-products>

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5324832/>



Group synchronous video consultation that enables interaction between group participants and HCPs.

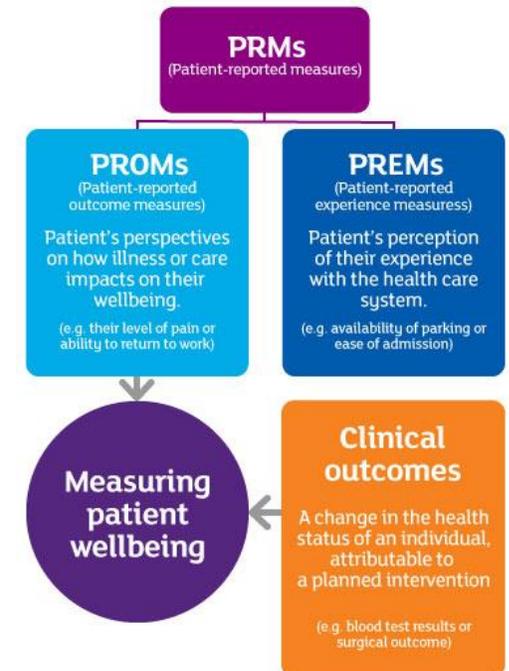
- No evidence regarding the effectiveness of these for people with persistent pain and minimal guidance on practical aspects of clinical delivery or software choice (*Walumbe et al, 2020*).
- Easier to engage for some (*Walumbe et al, 2020*).
- May encourage social connection (*Walumbe et al, 2020*).
- Attrition may be lower compared to in-person (*Gardener et al., 2008; Glynn et al., 2020*).



Blended e.g., self-directed online resources coupled with telephone, video, platform/text contact with HCP (*e.g., Eccleston et al., 2014; Martorella et al, 2017; Paganini et al, 2019*).

# Evidence and Experiences to date

- Considerable investment in time, money and expertise (*Glynn et al., 2020*; *Walumbe et al, 2020*).
- Need to comply with information governance, privacy and data protection legislation (*Walumbe et al, 2020*).
- Ability to evaluate offers (*Walumbe et al, 2020*).



- Can increase access:
  - Address service gaps in areas where people do not have access.
  - Remove the need to travel long distances to access services (*Walumbe et al, 2020*).
  - Flexible to fit around caring responsibilities and other commitments (*Gentili et al, 2020; Walumbe et al, 2020*).
- Can reduce access resulting in digital inequality and digital exclusion (*Robinson, 2015*), particularly for already underserved populations.
  - Lack of or inadequate reliable hardware, software or the required levels of Internet access (*Walumbe et al, 2020*).
  - Lack of or inadequate digital literacy.
  - Lack of culturally tailored information (*Shanthanna et al, 2020*).



- Mindful use of the COVID-19 pandemic context:
  - pandemic-related metaphors (*Rhodes et al., 2020*).
  - modelling acceptance of technical glitches (*Rhodes et al., 2020*).
  - experiential exercises that make use of pandemic-related themes (*Rhodes et al., 2020*).
  - Seeing people in their home environment and using that contextual knowledge to modify treatment in real time (*Walumbe et al., 2020*).
- Clinician and service user frustrations (*Palyo et al., 2012*).



- Homeworking suits many clinicians (but not all).
- Staff training on:
  - the safe use of tele-health technology.
  - identifying suitable candidates and conducting risk assessments.
  - addressing identified risks that may occur *(Walumbe et al., 2020)*.



- Requirement for contingency plans including tech support or the use of alternatives.

- Anecdotally, clinicians have higher levels of workload and fatigue.
- High levels of clinician anxiety (*FOPM, 2020; Gilbert et al., 2020*) regarding:
  - the rapid switch to online service delivery.
  - not being familiar with software.
  - concerns about effectiveness.
  - adapting style to online.



Clinicians sometimes choose not to use digital health due to practical, technical or clinical reasons (*Shaw et al., 2018*).

# Potential (?future) Benefits of Digital Interventions

Digital formats make it possible to *(Gentili et al, 2020)*:

- use automated and tailored messages.
- send reminders.
- provide instant feedback.
- collect passive (system generated) and self-reported continuous data unbiased by retrospective recall:
  - allows for close follow up and aggregation of key information for further development of treatment models and technical solutions.
  - facilitates a better understanding of patient behaviours as it has high ecological validity (generalized to real-life settings).

# The Future

- There is likely to be an increase of people experiencing pain, fatigue, mental ill health, workloss and debt.
- We still don't know much about Long-COVID.
- Rapid implementation has been facilitated by relaxation of information governance regulatory frameworks and increased software availability (*NHSX, 2020*), *however*, many of the waivers and alterations in regulations that have occurred during COVID-19 will be reversed (*Shanthanna et al, 2020*).
- We need to:
  - respond adaptively to ongoing uncertainty and change, service user and clinician fatigue, distress and changing expectations.
  - connect with service users in new and creative ways (*Rhodes et al, 2020*).
  - reduce digital inequity and exclusion.
  - improve resources to support self-management.
  - tap into the wealth of expertise of people with lived experience.
  - address obstacles to implementation and evaluation.
  - share the learning and **celebrate success!**



# Further Information

- British Pain Society – Guide to alternative to face-to-face management programs- out soon
- Physiotherapy Pain Association.
  - PPA webinar: online pain management groups; 2020. Available from: <https://www.youtube.com/watch?v=m4cvhMJQb2c>.
  - PPA Webinar: Reflections on Digital Consultations- <https://ppa.csp.org.uk/publications/ppa-webinar-reflections-digital-consultations>
- Supporting self- management -<https://livewellwithpain.co.uk/news/dr-frances-cole-presents-international-pain-webinar/>
- Clair Jacobs- qualitative piece about running virtual groups. Pain and Rehabilitation (next issue hopefully)
- NHS Change Challenge is sharing pain service learning.

# References

- American Society of Regional Anesthesiology. Recommendations on chronic pain practice during the COVID-19 pandemic. 2020. <https://www.asra.com/page/2903/recommendations-onchronic-pain-practice-during-the-covid-19-pandemic> (accessed 31/03/2020).
- Banbury, A, Nancarrow, S, Dart, J, Gray, L, Parkinson, L. Telehealth interventions delivering home-based support group videoconferencing: systematic review. *J Med Internet Res* 2018;20:e25. <https://doi.org/10.2196/jmir.8090>.
- Buhrman M, Gordh T, Andersson G. Internet interventions for chronic pain including headache: a systematic review. *Internet Interventions* 2016; 4: 17–34.
- Chen, JA, Dawson, TC, Gelman, H, Zeliadt, SB. Bringing chronic-pain care to rural veterans: a telehealth pilot program description. *Psychol Serv* 2020. <https://doi.org/10.1037/ser0000408>[Epub ahead of print].
- D'Alessandro, LN, Brown, SC, Campbell, F, Ruskin, D, Mesaroli, G, Makkar, M, et al. Rapid mobilization of a virtual pediatric chronic pain clinic in Canada during the COVID-19 pandemic. *Can J Pain* 2020;41:162–7. <https://doi.org/10.1080/24740527.2020.1771688>.
- Devan H, Farmery D, Peebles L, Grainger R. Evaluation of self management support functions in apps for people with persistent pain: systematic review. *Journal of Medical Internet Research mHealth and uHealth* 2019; 7: e13080.
- Eccleston C, Blyth FM, Dear BF, et al. Managing patients with chronic pain during the Covid-19 outbreak: considerations for the rapid introduction of remotely supported (e-health) pain management services. *Pain* 2020. Epub 2 April. <https://doi.org/10.1097/j.pain.0000000000001885>.
- Faculty of Pain Medicine. FPM guidance on resumption of pain services following disruption by the COVID-19 pandemic Faculty of Pain Medicine; 2020. Available from: <https://fpm.ac.uk/sites/fpm/files/documents/2020-05/COVID-Reset-Guidance-on-Resumption-of-Pain-Services-May-2020.pdf>. nagement groups; 2020. Available from: <https://www.youtube.com/watch?v=m4cvhMJQb2c>.
- Faculty of Pain Medicine. FPM response to concern related to the safety of steroids injected as part of pain procedures during the current COVID-19 virus pandemic, 2020. <https://fpm.ac.uk/sites/fpm/files/documents/2020-03/FPM-COVID-19-Steroid-Statement-2020-v2.pdf> (accessed 31/03/2020).
- Gardner-Nix, J, Backman, S, Barbati, J, Grummitt, J. Evaluating distance education of a mindfulness-based meditation programme for chronic pain management. *J Telemed Telecare* 2008;14:88–92. <https://doi.org/10.1258/jtt.2007.070811>.

- Gilbert, AW, Billany, JCT, Adam, R, Martin, L, Tobin, R, Bagdai, S, et al. Rapid implementation of virtual clinics due to COVID-19: report and early evaluation of a quality improvement initiative. *BMJ Open Qual* 2020;9: e000985. <https://doi.org/10.1136/bmjopen-2020-000985>. Glynn, LH,
- Gentili, C., Zetterqvist, V., Rickardsson, J. *et al.* ACTsmart – development and feasibility of digital Acceptance and Commitment Therapy for adults with chronic pain. *npj Digit. Med.* 3, 20 (2020). <https://doi.org/10.1038/s41746-020-0228->
- Greenhalgh, T, Shaw, S, Wherton, J, Vijayaraghavan, S, Morris, J, Bhattacharya, S, et al. Real-world implementation of video outpatient consultations at macro, meso, and micro levels: mixed-method study. *J Med Internet Res* 2018;20: e150. <https://doi.org/10.2196/jmir.9897>.
- Kolasa K & Kozinski G How to Value Digital Health Interventions? A Systematic Literature Review *Int. J. Environ. Res. Public Health.* 2020; 17, 2119
- Murray, E; Hekler, EB; Andersson, G; Collins, LM; Doherty, A; Hollis, C; Rivera, DE; ... Wyatt, JC. Evaluating Digital Health Interventions: Key Questions and Approaches. *American Journal of Preventive Medicine.* 2016; 51 (5) pp. 843-851.
- NHSX. COVID-19 information governance advice for staff working in health and care organisations. Crown Copyright; 2020. Available from: <https://www.nhs.uk/covid-19-response/data-and-information-governance/information-governance/covid-19-information-governance-advice-health-and-care-professionals/>.
- Pain Association Physiotherapy. PPA webinar: online pain management groups; 2020. Available from: <https://www.youtube.com/watch?v=m4cvhMJQb2c>.
- Rhodes A, Martin S, Guarna J, Vowles K, Allen T A contextual-behavioral perspective on chronic pain during the COVID-19 pandemic and future times of mandated physical distancing. *Journal of Contextual Behavioral Science.* 2020. 17, 152-158.
- Shanthanna H, Strand NH, Provenzano DA, Lobo CA, Eldabe S, Bhatia A, Wegener J, Curtis K, Cohen SP and Narouze S. Caring for patients with pain during the COVID-19 pandemic: consensus recommendations from an international expert panel *Anaesthesia* 2020, 75, 935–944 <https://doi.org/10.1111/anae.15076>. [32259288](https://doi.org/10.1111/anae.15076).
- Shaw, S, Wherton, J, Vijayaraghavan, S, Morris, J, Bhattacharya, S, Hanson, P, et al. Advantages and limitations of virtual online consultations in a NHS acute trust: the VOCAL mixed-methods study Southampton (UK): NIHR Journals Library; 2018. Available from: <https://doi.org/10.3310/hsdr06210>.

- Smith J, Faux SG, Gardner T, et al. Reboot online: a randomized controlled trial comparing an online multidisciplinary pain management program with usual care for chronic pain. *Pain Medicine* 2019; 20: 2385–96.
- Walumbe J, Belton J & Denny D. Pain management programmes via video conferencing: a rapid review. *Scandinavian Journal of Pain*. Published online: 07 Oct 2020. DOI: <https://doi.org/10.1515/sjpain-2020-0112> |
- WHO guideline recommendations on digital interventions for health system strengthening. 2019
- Zanaboni P, Ngangue P, Mbemba GIC, Schopf TR, Bergmo TS, Gagnon MP. Methods to Evaluate the Effects of Internet-Based Digital Health Interventions for Citizens: Systematic Review of Reviews. *J Med Internet Res* 2018;20(6):e10202 DOI: [10.2196/10202](https://doi.org/10.2196/10202)



Thank you



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