

What is the effect of communication technology on the work of being a patient in orthopaedics? A systematic review

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Aims

- To systematically review qualitative papers reporting communication technology consultations (phone and videoconference) in orthopaedics.
- To develop a taxonomy of the 'work' of being a patient when using these technologies.
- To understand how the change in 'work' influences patient preference

Background

- Physiotherapy consultations in an orthopaedic setting often require both the ability to see and the use of one's hands.
- There has been an increasing number of research studies exploring the effectiveness and acceptability of telephone and videoconferencing consultations within orthopaedics. Much of the drive behind this change has been to improve access to care and to link the clinic to the home environment.
- The introduction of communication technology consultations may require a shift in patient 'work'.

Methods

- The protocol for the systematic review was registered and is available to view on the PROSPERO database (CRD42018100896).
- MEDLINE, AMED, CINAHL, PsychINFO, SCOPUS databases were independently searched, using the search strategy, by two researchers to identify qualitative papers reporting communication technology use in an orthopaedics setting.
- Data from Introduction, Results and Discussion sections was extracted and an attribution of statements formulated. All statements were thematically analysed into families of themes surrounding patient workload.
- We considered how this change in work influences patient preference for or against the use of communication technology.

Table 1: Eligibility Criteria of Studies

Inclusion	Exclusion
<ul style="list-style-type: none"> Full text academic papers. Patients with an orthopaedic / musculoskeletal problem Studies reporting patients accessing physical assessment / rehabilitation through the use of communication technology (e.g. telephone, videoconferencing) in an orthopaedic / musculoskeletal setting. Qualitative studies or studies with a qualitative component that focuses on the patient viewpoint of accessing communication technology. 	<ul style="list-style-type: none"> Conference abstracts Participants without an orthopaedic / musculoskeletal complaint Quantitative studies Studies not reporting patient viewpoints

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Ethical Approval Not required.

Results

Figure 1 – PRISMA Flow Diagram of included and excluded studies

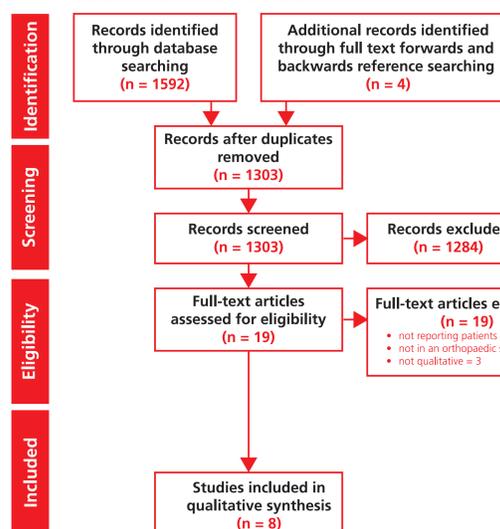
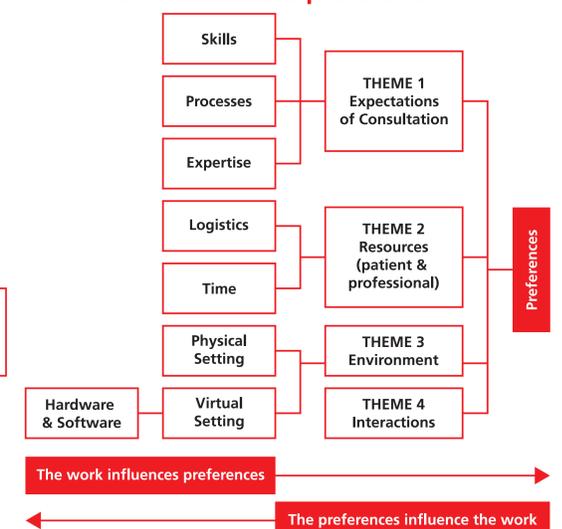


Figure 2 – Visual Model to demonstrate how 'work' influences preference



Included Studies

- Cranen, K. et al. (2012) 'An exploration of chronic pain patients' perceptions of home telerehabilitation services', Health Expectations, 15(4), pp. 339-350.
- Eriksson, L., Lindström, B. and Ekenberg, L. (2011) 'Patients' experiences of telerehabilitation at home after shoulder joint replacement', Journal Of Telemedicine And Telecare, 17(1), pp. 25-30.
- Harrison, R. et al. (2006) 'Patients' perceptions of joint teleconsultations: A qualitative evaluation', Health Expectations, 9(1), pp. 81-90.
- Hinman, R.S. et al. (2017) "'Sounds a Bit Crazy, But It Was Almost More Personal.'" A Qualitative Study of Patient and Clinician Experiences of Physical Therapist-Prescribed Exercise For Knee Osteoarthritis Via Skype', Arthritis Care & Research, 69(12), pp. 1834-1844.
- Kairy, D. et al. (2013) 'The patient's perspective of in-home telerehabilitation physiotherapy services following total knee arthroplasty', International Journal of Environmental Research and Public Health, 10(9), pp. 3998-4011.
- Lawford, B.J. et al. (2018) "'I was really sceptical... But it worked really well!': a qualitative study of patient perceptions of telephone-delivered exercise therapy by physiotherapists for people with knee osteoarthritis', Osteoarthritis and Cartilage, 26(6), pp. 741-750.
- Pearson, J. et al. (2016) 'The acceptability to patients of PhysioDirect telephone assessment and advice services; a qualitative interview study', BMC Health Services Research, 16, pp. 104-104.
- Young, L., Siden, H. and Tredwell, S. (2007) 'Post-surgical telehealth support for children and family care-givers', Journal of Telemedicine and Telecare, 13(1), pp. 15-19.

Table 2 - Practical application of results

Sarah

- She lives one hour away from the clinic where she required physio
- She needs to take a half day off work to physically attend her appointment. She can use part of her lunch break for a virtual appointment
- She works full time
- She has two primary school age children
- Her spouse is currently working away and she does not have anyone that can pick the children up for her
- She is familiar with her exercises and has the equipment she needs to do at home
- She is familiar with the use of Skype and uses it regularly on her phone for business
- The rehab clinic she goes to routinely uses virtual clinics and evaluation demonstrates they are safe and effective
- Sarah's shoulder rehab is going well and this session is scheduled to be an 8 week 'checkup' to see how things are going

Paula

- She works 5-minute walk away from the clinic where she requires physio
- She is self-employed and can be flexible with timings without the need to take holiday
- She works full time
- She has two primary school age children
- Her spouse works from home and is able to pick up the children
- Her last lot of exercises is causing her severe neck pain and she is concerned about the affect these exercises are having
- She has 'techno phobia' and is unfamiliar with any form of videoconferencing
- The rehab clinics are offering this new method as a pilot to test its feasibility
- Paula is unhappy with how her rehab is going and is concerned about her new neck pain. She wants the therapist to review and change her exercises

Who do you think is likely to choose a communication technology consultation: Sarah or Paula?

Conclusion

This review synthesises the change in the workload that patient's face when using these technologies. **These altered demands of communication technology consultations affect the patient's experience of accessing healthcare.** Consideration of these factors and tailored individualised support for patients may enhance the patient experience and increase suitability of communication technology consultations for orthopaedic patients.

These altered demands of communication technology consultations affect the patient's experience of accessing healthcare.



If you would like more information about this research, please visit the study website at www.theconnectproject.info or scan the QR code.