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AVEC LE SOUTIEN DU FONDS EUROPÉEN DE DÉVELOPPEMENT RÉGIONAL
MET STEUN VAN HET EUROPEES FONDS VOOR REGIONALE ONTWIKKELING

Projet N° 4.7.360 - Project N° 4.7.360

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36^e CONGRÈS DE LA SOCIÉTÉ FRANÇAISE DE
MÉDECINE PHYSIQUE
ET DE RÉADAPTATION

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Telerehabilitation of musculoskeletal diseases: Who wants it ?

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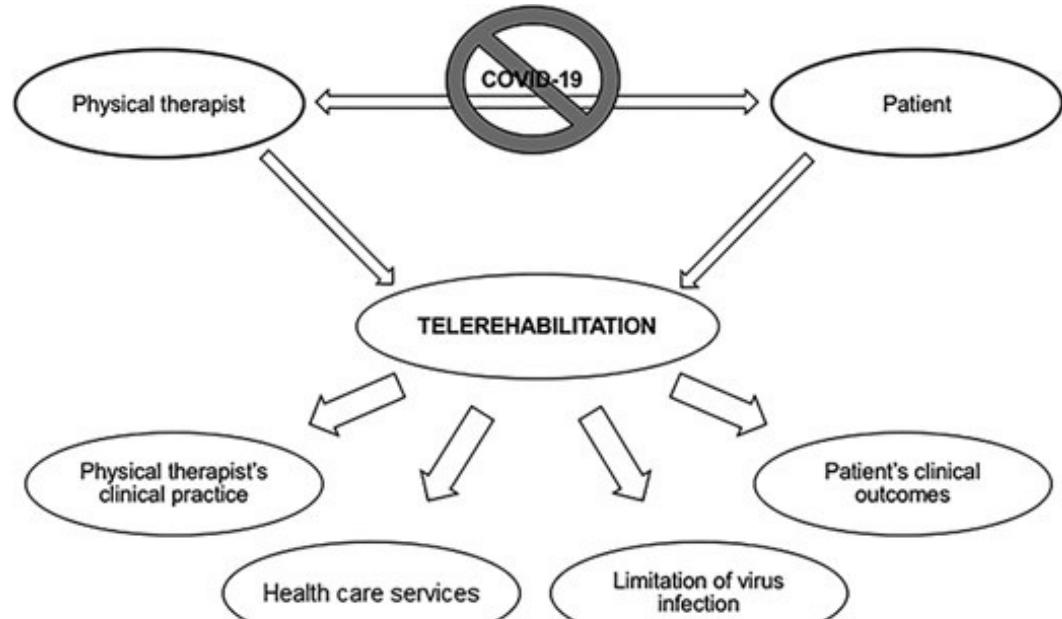
Fibromyalgie
France



Telerehabilitation ?

The ensemble of rehabilitation techniques relying on information and communication technologies (Rosen, 1999)

- Renewed interest because of COVID-19 and lockdowns
- EBM says that TR makes possible assessment & treatment of various musculo-skeletal diseases (MSD), see e.g. Cotrell (2017) and Turolla (2020).

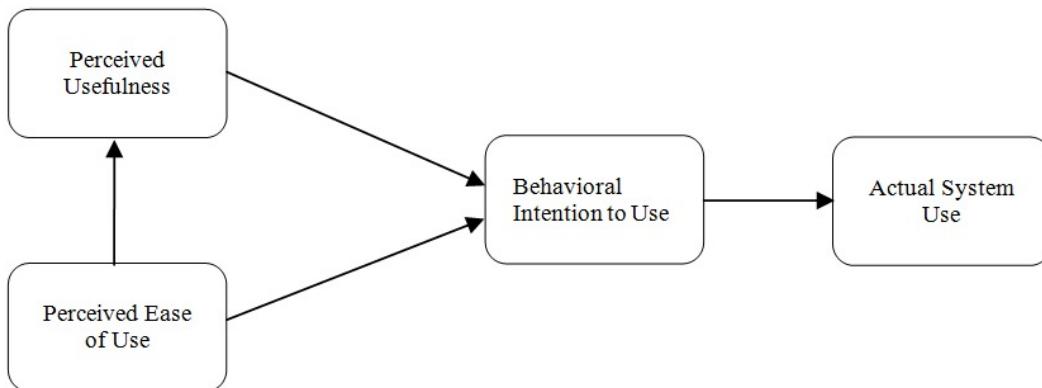


Turolla, 2020



Telerehabilitation = new technology

- Technology Acceptance Model: TAM (Fishbein, 1974). Using a new technology demands a positive perception of **usefulness** and **ease-of-use**.



- How did patients or therapists from France and Belgium perceive TR usefulness and ease-of-use during the second wave of the Covid-19 pandemic period ?

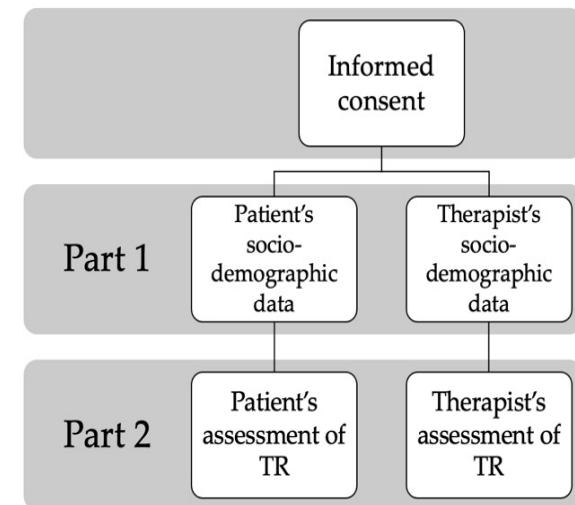
Questionnaire (January-March 2021)

Items (Likert scales) addressing TAM-related concepts

- Perceived ease of use
- Perceived usefulness
 - Job relevance
 - Output quality
 - Result demonstrability
 - ...

Participants contacted by e-mail and/or social networks.

Inclusion criterion : therapist or patient concerned by MSD



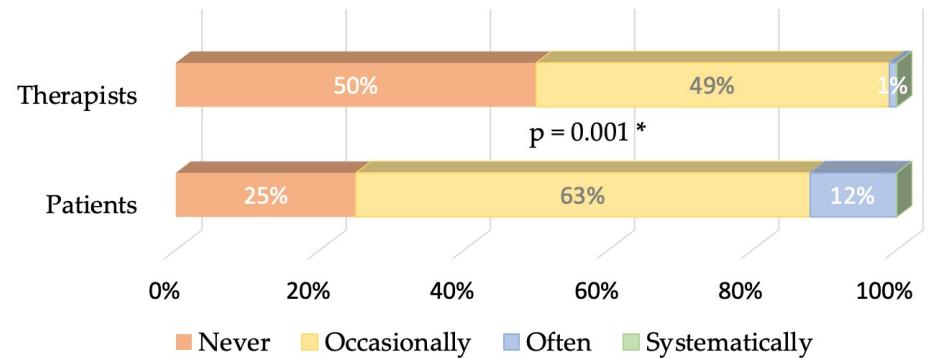
Population

Parameter	Patients	Therapists	p	
N	68	107		
Age (years)	46.6 ± 14.1	31.6 ± 10.0	≤ 0.001 *	t test
Live or work in (Belgium - France)	56% - 44%	78% - 22%	0.004 *	χ^2
Adequate internet connection quality (Yes-No)	89% - 11%	94% - 6%	0.260	
Adequate ease in using the internet (Yes-No)	98% - 2%	98% - 2%	0.690	
Previous use of TR (Yes-No)	88% - 12%	76% - 24%	0.065	
Number of managed MSD patients per week: face-to-face		15 [10 – 30]		
Number of managed MSD patients per week: TR		2 [1 – 3]		

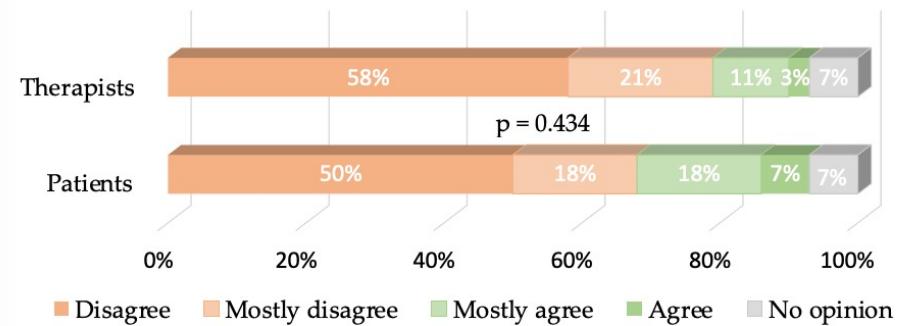
Results / Discussion

- No intention to use TR in both groups.
 - Therapists are more opposed to TR
- It does not originate in the perceived ease of use of TR.

I intend to use TR for the management of my MSD/my patient's MSD.



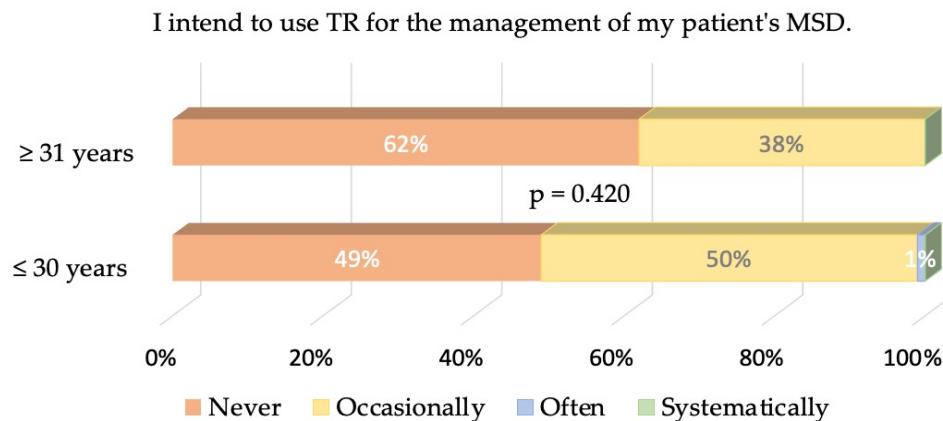
I think it would be difficult for me to master any of the tools needed for TR.



(a)

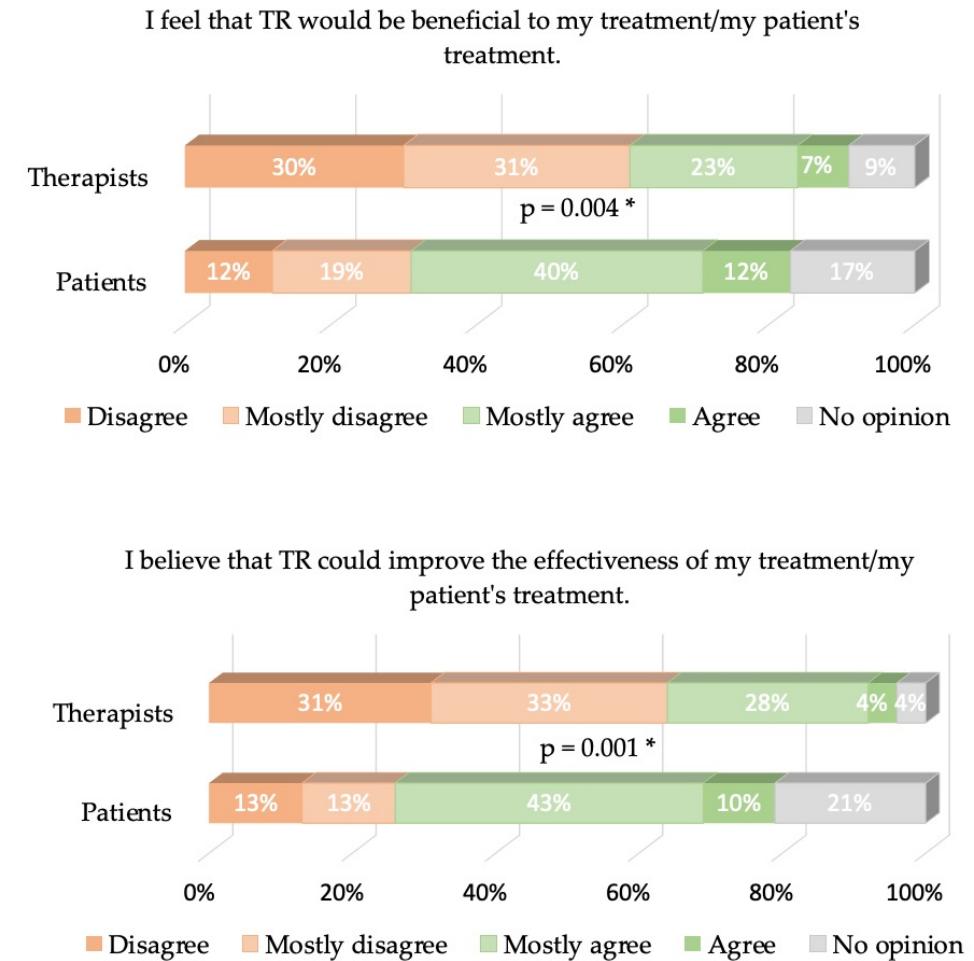
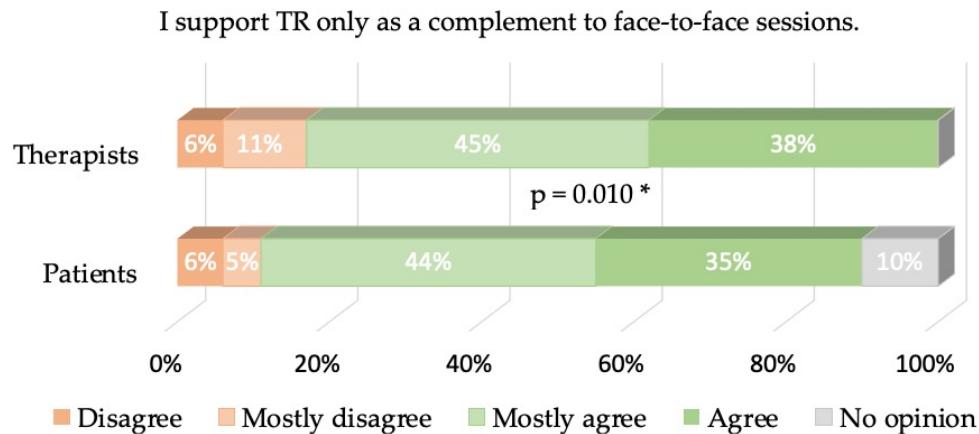
Results / Discussion

- Therapists: clearly against TR
 - They are “masseurs-kinésithérapeutes”. Their mental representation of a “good” therapist probably excludes TR. Touching is at the heart of the profession (Pilotti, 2002).
 - Lack of information about TR from scientific literature ?
 - Not really a matter of age



Results / Discussion

- Patients are more optimistic about TR
 - Patients could accept TR as a complement: time saving, lockdown, increased autonomy (Slater, 2016; Cotrell, 2019).



Results / Discussion

- TR: Drop it ? Or missed opportunity during pandemic ?
- Could be part of “therapist’s toolbox”.
 - Focus on patient’s autonomy
 - Included in teaching ?
- To be continued... check our website

Perceived usefulness of telerehabilitation of musculoskeletal disorders: A Belgium-France cross-border survey during second wave of Covid-19 pandemic

Citation: Dierick, F.; Pierre, A.; Profeta, L.; Dierick, F. Perceived usefulness of telerehabilitation of musculoskeletal disorders *Healthcare* **2021**, *9*, x.

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References

- Cottrell, M.A. ; Galea, OA. ; O'Leary, SP.; Hill, AJ. ; Russell, TG. (2017). Real-time telerehabilitation for the treatment of musculoskeletal conditions is effective and comparable to standard practice: a systematic review and meta-analysis. *Clin Rehabil.* 2017 May, **31**(5), 625-638. doi: 10.1177/0269215516645148.
- Cottrell, M. A., O'Leary, S. P., Raymer, M., Hill, A. J., Comans, T., & Russell, T. G. (2019). Does telerehabilitation result in inferior clinical outcomes compared with in-person care for the management of chronic musculoskeletal spinal conditions in the tertiary hospital setting? A non-randomised pilot clinical trial. *Journal of Telemedicine and Telecare*, 1357633X19887265. <https://doi.org/10.1177/1357633X19887265>
- Fishbein, M.; Ajzen, I. (1974). Attitudes towards objects as predictors of single and multiple behavioral criteria , *Psychological Review* **81**, 59-74.
- Pilotti, A. (2002). L'écriture comme analyseur des implications professionnelles du praticien masseur-kinésithérapeute hospitalier. Mémoire de maîtrise en Sciences de l'éducation inédit. Université de Paris VIII, France.
- Rosen, M.J. Telerehabilitation. *Telemed J E Health.* 2004, **10**(2), 115-122. doi: 10.1089/tmj.2004.10.115.
- Slater, H.; Dear, B. F.; Merolli, M. A.; Li, L. C.; Briggs, A. M. (2016). Use of eHealth technologies to enable the implementation of musculoskeletal Models of Care : Evidence and practice. Best Practice & Research. *Clinical Rheumatology*, **30**(3), 483-502. <https://doi.org/10.1016/j.berh.2016.08.006>
- Turolla, A. ; Rossettini, G.; Viceconti, A.; Palese, A. ; Geri, T. (2020). Musculoskeletal Physical Therapy During the COVID-19 Pandemic: Is Telerehabilitation the Answer? *Phys Ther.* 2020 Aug 12, **100**(8), 1260-1264. doi: 10.1093/ptj/pzaa093.



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