

The Use of Digital Tools within Physiotherapy: Facilitators and Barriers

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Introduction

This poster is **part of a larger study** undertaken in partnership with **Medbase**, which owns over 50 medical and physiotherapy outpatient clinics in Switzerland. Physiotherapists are provided with a **mobile health-application** from Physitrack TM (hereafter APP), that allows creating and distributing home exercise programs, monitoring patients' progress, offering chat/video remote coaching and education material.

The aims are to:

- investigate **how** the APP by Medbase and other digital tools are **used** in ambulatory physiotherapy
- identify factors that **facilitate** or **hinder** the adoption of the APP

Analysis of data collected before and after COVID-19-restrictions suggests particular relevance of certain factors.

Background

The **use of digital technology in health- and rehabilitation care** has become increasingly important. International studies revealed:

- its **potential for physiotherapy practice**, e.g. improve therapy interventions, facilitate access to expertise and supervision (cf. Hinmann et al, 2017).
- patients' perception** of its use is mostly **positive** (cf. Lawford et al, 2018)

However, studies pointed out:

- adoption in physiotherapy is **low** and therapists' perception of its benefits for practice is **mitigated** (cf. Button et al, 2018)
- impact on physiotherapy practice, its organization and communication between therapist and patient is **profound** (Blixt et al, 2019)
- research on its use in Swiss physiotherapy is **scarce** (PhysioActive, 2017)

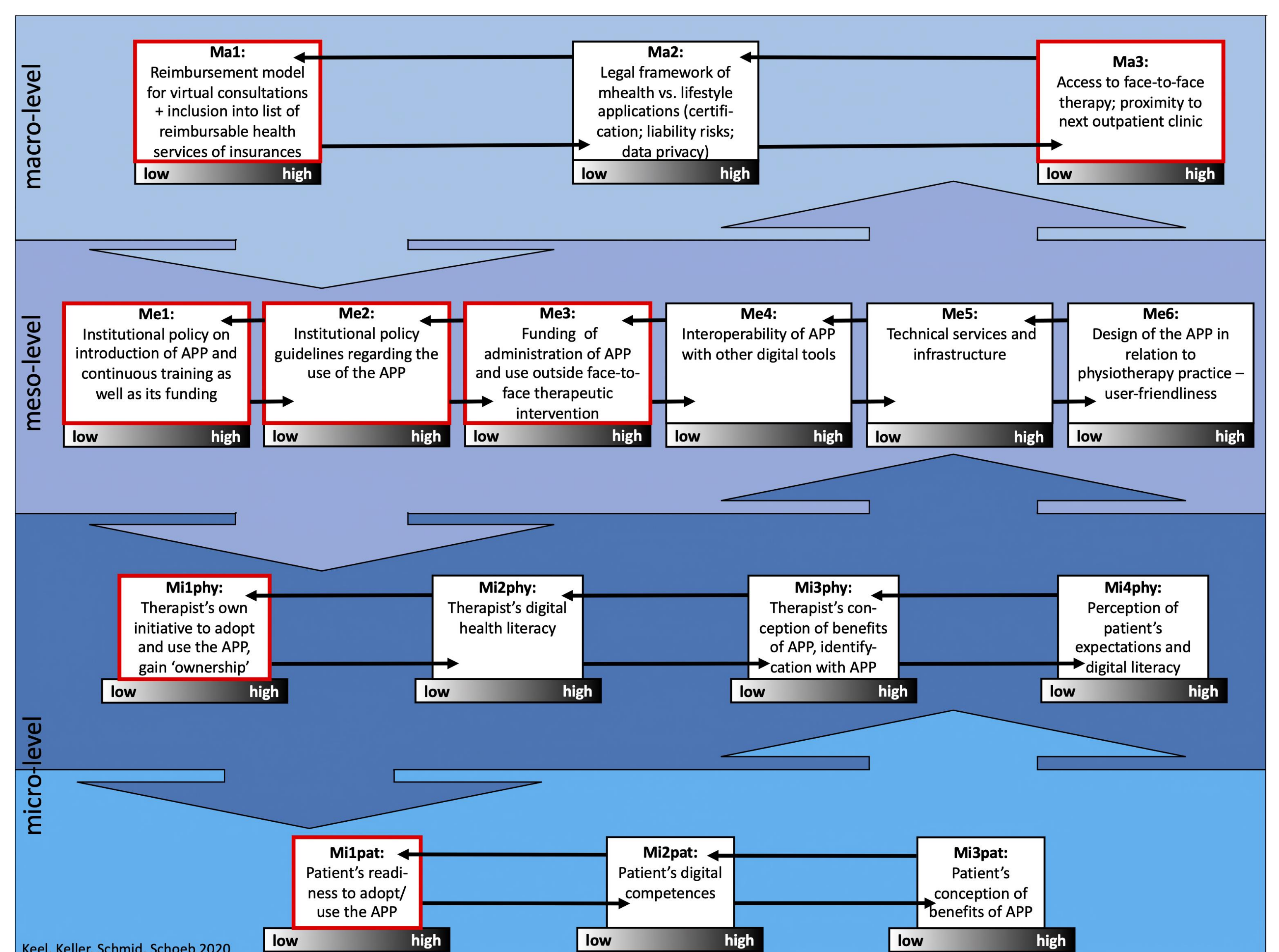
Ethnographic Workplace Study

In order to understand low adoption of the APP from an endogenous, i.e. users' perspective, an **ethnographic workplace study** approach was adopted (vom Lehn, 2018). Fieldwork in two Medbase physiotherapy outpatient clinics was undertaken from February to June 2020:

- observing physiotherapists' **daily practice** (therapy sessions; administrative work; team meetings)
- interviewing physiotherapists** about use and perception of the APP
- eliciting patients' age, gender, general experience with digital tools

Data collection was interrupted during COVID-19 restrictions:

Period	Observed sessions	Participating PHY	Participating PAT
February-March 2020	31	13	31
June 2020	14		12



Findings

The figure above shows **16 factors on three levels**, facilitating or hindering the adoption of the APP in daily physiotherapy practice:

- the Swiss health system – macro-level (Ma1-3)
- the institutional – meso-level (Me1-6)
- the interactional physiotherapist-patient – micro-level (Miphy1-4; Mipat1-3)

The valence of an individual factor leads to low or high adoption of the APP: e.g. in Switzerland, the absence of a reimbursement model including virtual consultations into the list of reimbursable health services (Ma1), hinders the adoption.

+ Factors **mutually influence** each other:

- top-down and bottom-up (see arrows between distinct levels)
- on a horizontal level (see arrows between factors of a same level)

The impact of distinct factors as facilitators or barriers is the result of a **complex and dynamic process**.

Conclusion

During COVID-19 restrictions (March-April 2020) and after their partial relaxation, the adoption and use of the APP significantly increased. Main factors for the increase (highlighted with red frames in the figure) were:

macro-level (Ma1; Ma3): Virtual consultations were partially reimbursed and the access to face-to-face consultations was limited.

meso-level (Me1; Me2; Me3): Continuous training and administrative work with the APP was fully financed and guidelines for handling virtual consultation and the creation of home programs were provided.

micro-level (Mi1phy; Mi1pat): Physiotherapists' initiative and patients' readiness to adopt and use the APP proved crucial.

+ Degree of increase was determined by the way physiotherapists of a same site dealt with the changed context as a team and how they interacted with each other and with patients.

Further research is required to understand the impact of the interplay between distinct levels and factors on **the middle- and long-term adoption** of the APP.

References

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