Digital tools to support IPS delivery and usage - research and practice

Sweden

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Digital health

The field of knowledge and practice associated with the development and use of digital technologies to improve health. The term digital health is used as an umbrella term, encompassing both eHealth and mHealth (WHO, 2021).

e-health

E-health is an emerging field at the intersection of medical informatics, public health and business, and refers to health services and information delivered or enhanced through the internet and related technologies.

In a broader sense, the term characterizes not only a technical development, but also a state-of-mind, a way of thinking, an attitude, and a commitment for networked, global thinking, to improve health care locally, regionally, and worldwide by using information and communication technology (Eysenbach, 2001).
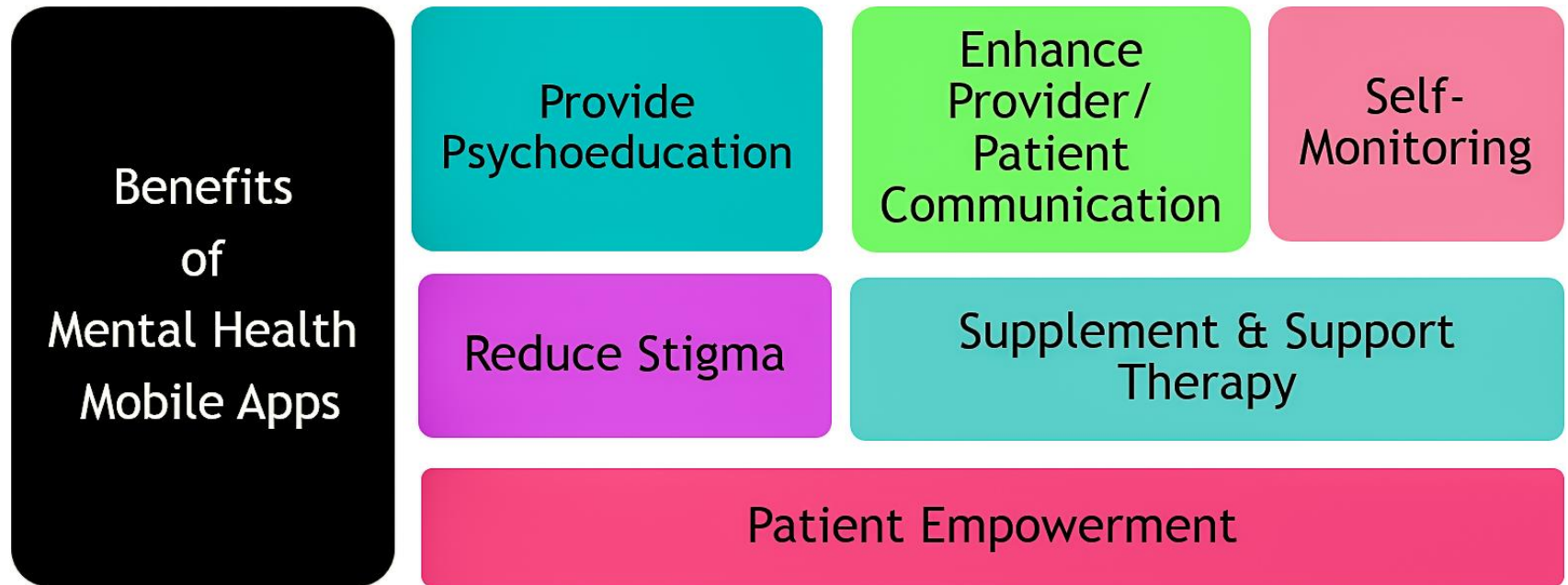
m-health

- mHealth or mobile health as medical and public health practice supported by mobile devices, such as mobile phones, patient monitoring devices, personal digital assistants (PDAs), and other mobile wireless devices.

Mobile Mental Health

- Mobile phone usage is expected to make working life more available (Proudfoot 2012).

- Development of health-application is constantly increasing but the research base is slim

- "Mobile health" will play a role in the prevention of mental health problems

- Mobile phone usage is about the same for people with or without mental health problems (Tourus et al, 2014), and slightly lower among those with serious mental health problems (Ben-Zeev et al., 2013)

Benefits of Mental Health Mobile Apps

- Provide Psychoeducation
- Enhance Provider/Patient Communication
- Self-Monitoring
- Reduce Stigma
- Supplement & Support Therapy
- Patient Empowerment

(East et al, 2015)

Digital tools in treatment

The worldwide distribution of smartphone and tablets has dramatically changed the access to mental health interventions are downloadable online.

Systematic reviews have shown that a wide variety of mental health web-based applications is developed for treatment (Basnet, Tamminen, Lathi, 2014)

- Lowers user threshold
- Increase autonomy
- Be used anywhere
- Reduce stigma
- Enhance better communication and follow up between professionals and users

Digital tools for recovery

- The mental health and recovery models of today propose a more engaged and empowered role of the service user, taking active part in care, treatment, but also recovery (Bejerholm & Björkman, 2011)

- Transcend the time and geographic boundaries of traditional clinical settings so that individuals can access care when and where they need it (Lord, McGurk, Nicholson et al, 2014)

- Digital tools may address critical barriers to work self-efficacy and employment by increasing awareness of strengths, resources, mental health and strategies that are helpful, as well as available support (Lord, McGurk, Nicholson et al, 2014; Engdahl, Svedberg, Bejerholm, 2022)

- Digital tools may break a downward spiral of mental ill health and low self-esteem during sick leave of long-term benefits dependency (Engdahl, Svedberg, Bejerholm, 2021)

- Self-management interventions form a critical part of recovery-oriented services and digital tools may support user control (Bejerholm & Roe, 2018)

Self-management

To self-monitor progress provides the user with insights and opportunities for shared understanding and evaluation of the IPS process. A sense of ownership and control.

Self-management as a complement the standard practice of IPS and return-to-work services to empower users

The amount of time employment specialists spend in the community is still critically associated with better employment outcomes (Margolies et al 2022)

Benefits of digital tools in IPS?

- In the moment support (Nicholson et al 2018)

- Increase self-awareness and making choices

- Raise awareness of job preferences and skills

- A system to document and update preferences and improve job-matches

- Develop individual goals and plans

(Lord, McGurk, Nicholson, et al 2014)

Benefits of digital tools in IPS?

- Identify support needs and network
- Scheduling services and actions
- Monitor insights and recovery journey
- Updating career profile independently and together
- Support management of mental health
- Fostering on-going support and development

(Lord, McGurk, Nicholson, et al 2014)

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The WorkingWell app
(preliminary data)

- Developed within the context of IPS

- Developed to support job-tenure

- Considered an easy, user-friendly, and simple follow along digital support at work (Nicholson et al 2018*)*

- Feasible in a sample of 37 users with schizoaffective, bipolar or depressive disorder

- Mostly used on the home screen however, to address ratings of the day and progress, a little less used were the moment support and reminders

- Needs some modifications

The mWorks app

Individual Placement and Support, IPS (Forte, 2008-2011)

Individual Enabling and Support, IES (IPS+CBT) (REHSAM, 2010-2014)

Support to Employers about Mental Health SEAM (FK, 2014-2017)

mWorks (Forte 2017-2021+) (Forte 2019-2022)

IPS + CBT?

- CBT-strategies should be used to battle mental health problems in the workplace today (Naidu et al 2015).

- CBT-strategies integrated with IPS support thinking processes and function as a mood and decision support in the job-development process and at work (Johanson et al, 2019; LeComte, Corbiére, Lysaker, 2014; Reme et al, 2015).

- Has shown to be a good integration for persons with depression (Bejerholm et el. 2017; Porter & Bejerholm, 2018)
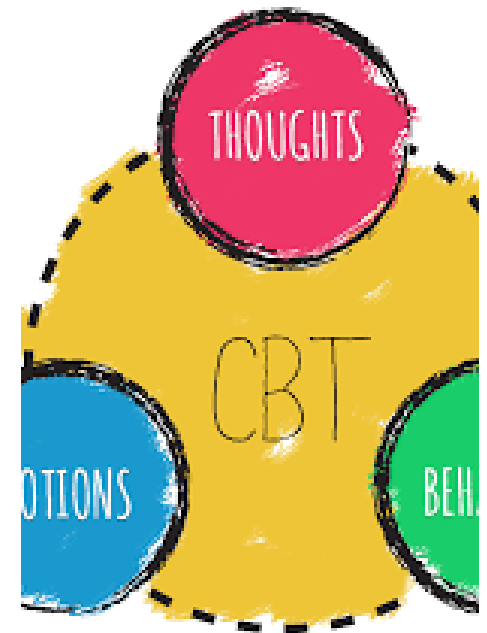
The development and evaluation of mWorks

Translating IPS+CBT into a digital solution

mWorks

Din väg tillbaka till arbete

What about usability?

- Usability of mobile interventions in general is not known

- Usability evaluations tend to be summative and use single questionnaries

- Really needs to be adapted to stakeholders' interest, preferences and interests

Coproduction

- Stems from economics and civil rights contexts and refers to the value created by engaging service users in service delivery (Boyle, Clark, & Burns, 2006; Ostrom, 1996).

- Regards transformation of control of power

- New way of thinking about eachother (leaders, users, professionals, carers)

- Develop a shared understanding of change and what is needed

- Coproduction facilitate change
    - A shared vision and strategy
    - Lead by examples, tone and culture
    - Empower to work coproductively

- Involves interdependent work of users and providers, professionals to design, create, develop, deliver, assess and improve the relationships and actions that contribute to the health of individuals and populations (Batalden et al., 2016; Elwyn, Nelson, Hager, & Price, 2020)

Why would the user want a digital solution in IPS?

- The employment support is in the pocket
- Can make decisions and be involved
- Can identify resources and abilities
- Can plan return to work or studies
- Can develop control when in distress
- Can overview individuals and actors involved in the support process
- Can use own strategies at work
- Can monitor goals and process if needed

(Bejerholm et al, 2017;

Engdahl, Svedberg, Bejerholm, 2020;2021)

Stakeholders' interest, needs and preferences

Supporting service user empowerment

- Owning one's RTW process
- Promote decisions with user consent
- Accessible RTW chain

Addressing implementation challenges

- Professional attitudes and beliefs
- Legitimacy of digitalization
- Surrounding legislation and policy
- Unforeseen costs

Create a positive user experience

- Simplicity
- The importance of design
- Emphasis on resources and strengths
- Alternative communication approaches

Critical content for return to work

- Accessible rehabilitation network
- A clear plan
- Strategies for handling stress and anxiety

(Engdahl, Svedberg, Lexén & Bejerholm, 2020)

Acceptability among users

Construct (%)	Theme
Affective attitude (18.9)	Avoids feelings of being judged Creates a sense of safety Creates a harmonious feeling
Burden (28.2)	Need for flexibility regarding feedback Motivational difficulties Cognitive strain
Ethicality (14.8)	Increase service user control Reduced clinical and deficit-oriented approach
Intervention coherence (4.9)	Counteracts evasive behaviours
Opportunity costs (11.2)	Complement to traditional RTW support, not a substitute Safe digital space to progress
Perceived effectiveness (13.3)	Involves the entire RTW process Support regardless of place and time Enables a proactive RTW process
Self-efficacy (8.4)	Confidence in using digital platform Increase stress levels Dependent on age and earlier digital experiences

(Engdahl, Svedberg & Bejerholm, 2021)

Codesign and prototype development

Pre-prototype
- Studies on preferences and acceptability in context
- Interviews with users to map frustrations
- IPS+CBT
- Literature

Creation of archetypical users "PERSONAS"
- Sara och Max

Paper- and Alpha-prototype development (7 iterations)
- Workshops, reference and user groups, public involvment

Beta-prototype development

Increasing coherence, lowering cognitive load (chat-bot, interactive tasks)

Using personas och redemption stories to inform format and design features

Category and subcategory
service user — Enabling self-management back to work
Supplementing traditional RTW and health care services
Providing a comprehensible overview of the RTW process
Coordinating the support network to facilitate RTW
Resolving ambivalence regarding mental health disclosure
Fostering service user control
Breaking the downward spiral
Assisting device that identifies strengths and resources
Helping to reshape a positive self-narrative
Permeating a positive, hopeful and stigma-free impression
Perceiving the encounter as warm and welcoming
users with port tool — Mobilizing own strategies
Coping with thoughts and feelings during work return
Helping to identify cognitive strategies
Suggesting a variety of content features
Helping users to plan for their RTW process
Improving data privacy
Implementing measures to safeguard personal data
Requesting options to interact with self-selected support p...
user — Facilitating comprehension of mWorks
Need to understand content intuitively
Explaining the significance of mWorks content in relation
Reducing the amount of text-based content
Reducing the need for recall
Need for accessible chat support
Providing motivation and goal-setting strategies
Addressing service users' jaded motivations
Presenting a time-bound, measurable, and concrete develo...
Importance of a goal and reward-oriented design
Advising for a more engaging design

...ork; Five stakeholder groups included: 1) service users 2) RTW professionals ... s 5) and public involvement

Critical ingredients that informed development

(Engdahl, Svedberg, Bejerholm 2022)

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Homepage for login and general information

www.mworks.nu

Logga in på ditt mWorks

Mitt mWorks

Din email
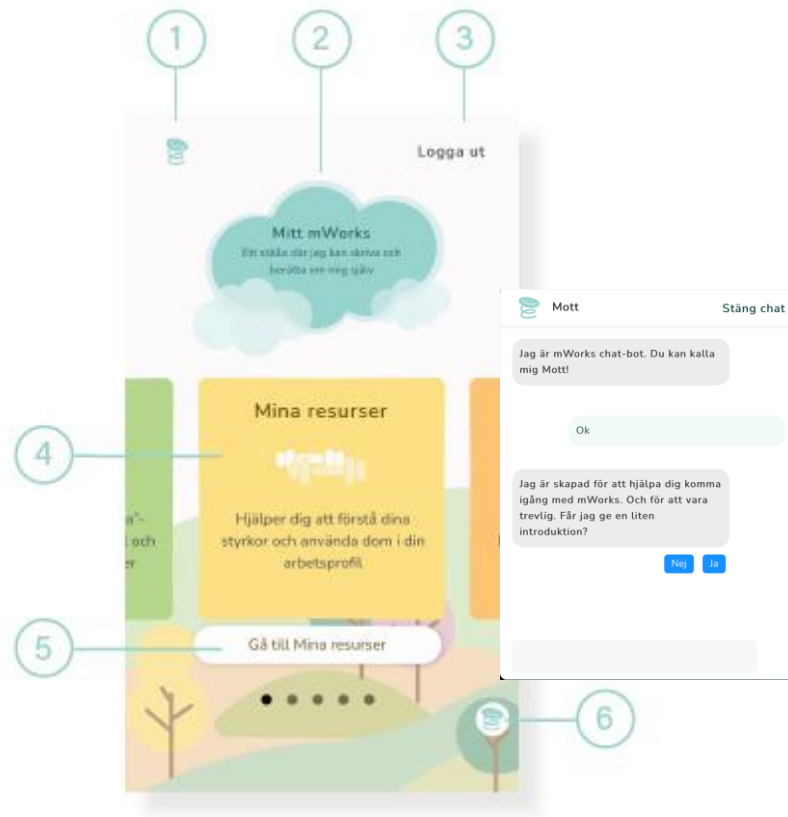
Ditt lösenord

Logga in

Registrera dig här

Layout home on mobile phone

Trying out mWorks
(process evaluation)

- To evaluate the process of implementing the delivery of mWorks. More specifically, we attempted to evaluate the intervention delivery in relation to the context, implementation process, and mechanism of impact. Medical Research Council Framework

- Single case study during the delivery phase of 10 weeks (manuals for both ES and user), triangulating both qualitative and quantitative data

Results delivery

- mWorks was delivered and received according to plan (minimum 3 dialogue meetings in 10 weeks)
  - Adaptions, one ES added a meeting
  - High ratings (1-10 scale)

- Human support (ES) was essential engagement, but face-to-face follow-up meetings could be exhanged with digital meetings

- Should not be delivered the first two-three months after diagnoses (exhaustion disorder especially)

Citations on delivery

So it is not that I go to her (professional) and get one dose and then another dose, but there is an active work going on (process). The space in between (meetings) is very useful to me [Service user 1]

These two complements, mWorks and professional. Unbeatable combination! I do not think you should choose one or the other, but you should combine them. [Service user 1]

I have to say an 8, because when I have needed to, I have used what I needed, like" [Service user 3]

Did not use mWorks on a daily basis, but I used it in a way that I repeated the steps in order to internalize the content and what I had worked with. Because, yes, for it to get stuck in my head. [Service user 5]
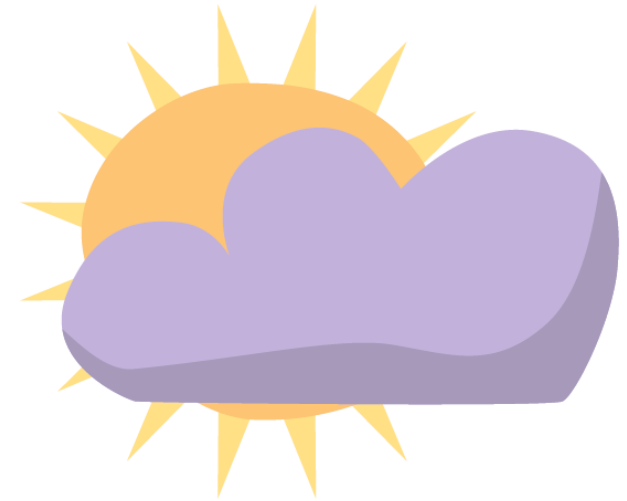
Results, direction of impact
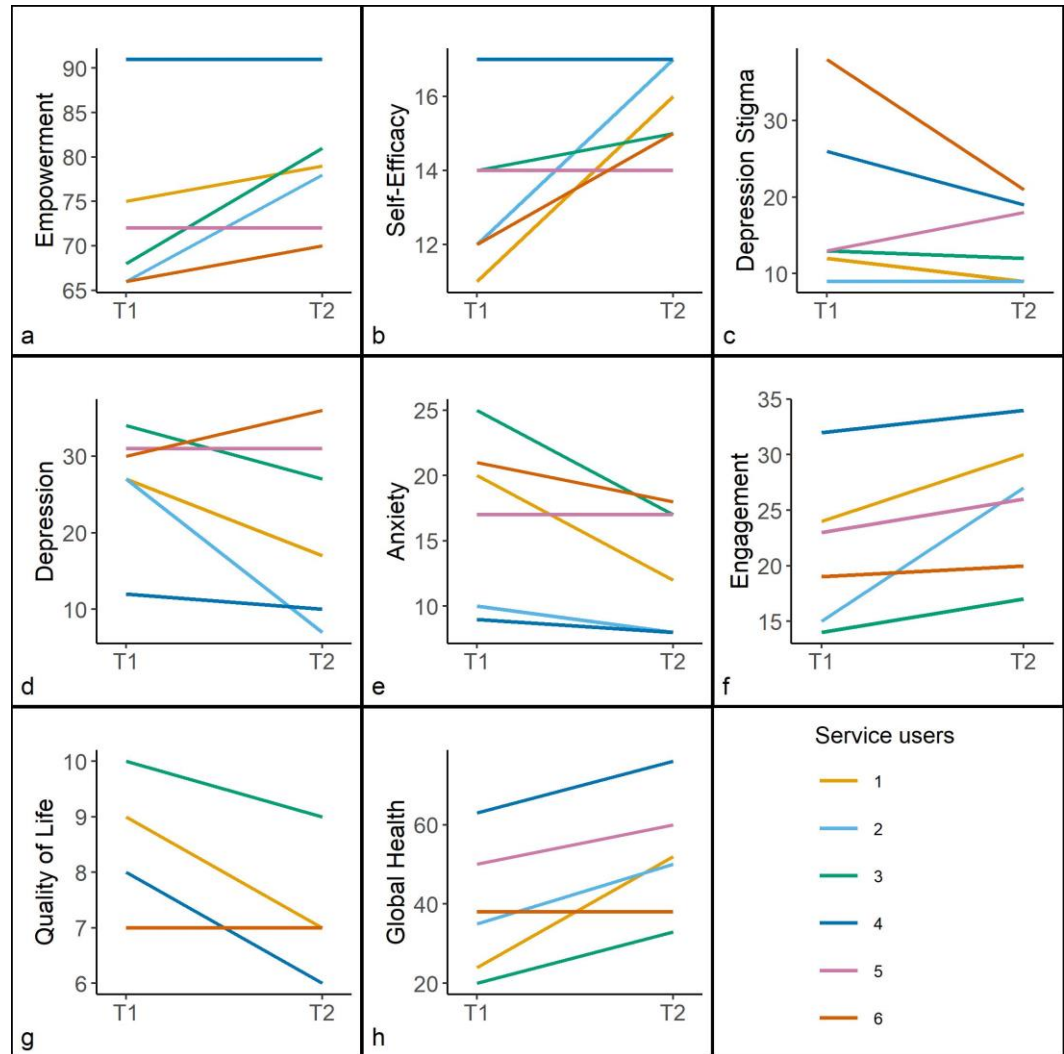
(process evalutation)

Significant changes

- Optimism and control (subscale Emp)
- Anxiety
- Engagemant
- Quality of Life
- Global health

Trends

- Self-efficacy (0.058)
- Depression stigma (0.269)
- Depression (0.138)

Results, direction of impact Themes

Contributes to one's own place to turn to for reflection and documentation

Reveals authentic insights about one's self and position in relation to the entire process

Generates user control and agency
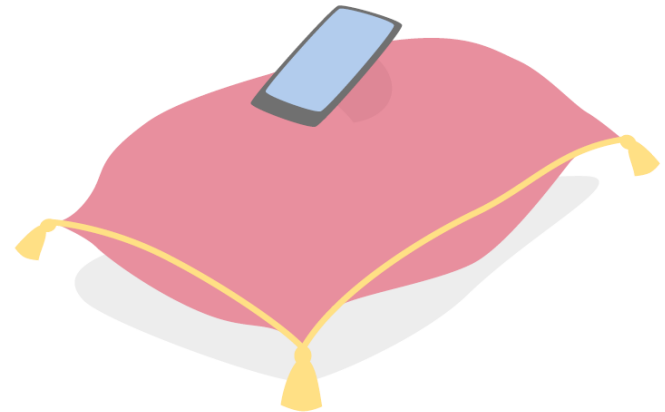
Helps to prevent mental ill-health from unfolding

Turns negatives into positives

Makes it possible to explain circumstances about mental health and the RTW process to others

Supports goals and seeing them through

Results, direction of impact
Citations

It is really like that, actually, that one has a place to go. When you have had those thoughts, exactly (…) It is nice with a tool about how it all has worked for me (…) where it becomes concrete

(Service user 2)

Being in a process is what is important to me, and that is why I can say, I am halfway there. This about work does not have the same meaning as when I crashed. Then it was just like going back on track as soon as possible. And that is not where I am now, but right now I have gained another insight about myself and have picked up some pieces of who I am and want to be

It was good and clear to me, I understand how I end up where I end up. So I think it has been great (…) to clarify in a text makes it easier to find strategies as well, and how not to do things

[Service user 1]

Also for myself, that when you see what has come to, and that you have managed so far, it was quite interesting (…) To process and conclude what has happened (…) and what to think about.

[Service user 5]

I am using this (mWorks) as a very important diary for myself. Because everything is here, I know how I should insert when I have a thought, it can be a simple word like "acceptance" that didn't exist for me in the beginning

(Service user 3)

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Results, direction of impact
Citations

Now is the first time that I have accepted that life is not nail straight (…) I have to accept that. I do not need to like it. Now it is like this and I cannot compare to how it was before (…) and then I figure out how to do it, how I can manage if I have 35% of my energy, how it will last until I get home (after work)

(Service user 2)

When you are in a dark place, to be able to just sit and think about good things about you (…) Makes it easier to let go of intruding thoughts that is part of diagnosis and making it possible to get it out, black on white (…) Now I have thought about that. I do not need to dwell on it more today (…) I need to get rid of it and I write in my phone, I need it off my system (…) for the moment it blows off some steam

(Service user 2)

I wrote to my employer today that I will see how I feel after leaving here and if i work this afternoon or have flextime (…) much clearer now and much more honest

(Service user 1)

Conclusions

Digital solutions fit well with IPS and may enhance user agency, control and health

Should be used as a complement to IPS

Can be used by those who wants to use digital tools

Critical to explain that NO ONE can see what happens in mWorks, it can be used according to preferences during job-development process and at work, and be updated as the user move along

Thank you

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