**Working title:** ICT and health and wellbeing

**Why**

The increased use of digital devices poses some challenges for the quality of working life. One of them it is,

for example, a certain role in the observed general increase in work intensification, which could have an impact on health and well-being aspects and outcomes like stress, fatigue, anxiety, headaches or sleeping disorders. Expecting that the use of ICT will increase further in the future, it would be interesting to explore the association between the degree of ICT use with health and well-being.

**Research questions**

* What is the link between ICT use and health and wellbeing?
* To what extent is the link between ICT use and health and wellbeing mediated by job intensity and related conditions?
* Is there a difference between groups in the link between the degree of ICT use and health and wellbeing?

Note that the relationship between ICT and health and wellbeing is complex and that causality cannot be proven on the basis of the cross-sectional EWCS data.

**Policy relevance**

Contributes to understanding if and how ICT may affect health and wellbeing and which factors may moderate or aggravate this relationship. Also, it may point out for which groups (gender, age, and occupation for example) this is particularly the case.

In the context of the increase overall digitalisation of work and the use of ICTs in particular, findings can contribute to implement policies that take into account possible negative outcomes of the use of ICTs.

24 January 2019: meeting Mathijn and Oscar

* Write for a section in the ICT mobile worker report that covers the relationship between ICT mobile work and health
* Focus on the association between ICT and health, then make the link to ICT mobile workers later
* Consider the link between ICT and health in a wider context of work organization.
* Link from ICT usage to job intensity (or elements of that) to health outcomes.
* Alternatively: link ICT usage to job demands resources model .
* Planning: first draft end of feb and final end of march.

Lit scan / ideas

Use multiple waves where possible?

Hoonakker (chapter 2 of book) -> no direct link between ICT and QWL on country level, no link between intensity and ICT either.

Kubicek et al (book) -> rise of intensification (check with EWCS)

Controls

Occupation

Hours worked (could be moderator)

Number of jobs

Mobility

Education

Country

Demands

Quantitative demands: Frequent disruptive interruptions / High speed / tight deadlines / enough

time to get the job done

Working in free time to meet work demands

Work extensity (weekly working hours + long working days)

Resources

Hour or two off

Working time arrangements

Cognitive dimension: solving unforeseen problems, carrying out complex tasks, learning new things, ability to apply new your own ideas.

Decision latitude: 3 autonomy + having a say in choice of colleagues

Social support index

Q70E: there is good cooperation between you and your colleagues

Q89D: I generally get on well with my work colleagues

Mediators

Engagement

Exhaustion + cynicism (burnout)

Outcomes

WHO5 (opposite being at risk of depression)

Anxiety, possible connection to technostress

Fatigure / sleeping scale

Self-rated health

Sitting / repetitive hand or arm movements

Stress

Muscular pains, headaches / eyestrain

Sleeping scale

Absenteeism / presenteeism

|  |  |  |
| --- | --- | --- |
| Constructs | Indicators | Standardised factor loading |
| Physical risks | Ambient risks index (mean of Q29b-Q29d) | .604 |
| Biochemical risks index (mean of Q29e-Q29i) | .557 |
| Posture-related risks index (mean of Q29a, Q30a-c, Q30e) | .914 |
| Work intensity | Working at very high speed (Q49a) | .866 |
| Working to tight deadlines (Q49b) | .756 |
| Work extensity | Weekly working hours (Q24) | .593 |
| Long working days (Q37d) | .736 |
| Emotional demands | Handling angry clients (Q30g) | .562 |
| Emotionally disturbing situations (Q30h) | .838 |
| Social demands | Harassment index (mean of Q80a-d, Q81a-c) | .738 |
| Discrimination index (mean of Q72a-g) | .359 |
| Social resources | Colleague social support index (mean of Q61a, Q70e, Q89d) | .594 |
| Supervisor social support index (mean of Q61b, Q63a-f) | .787 |
| Recognition index (mean of Q70a-b, Q89c) | .879 |
| Organizational justice index (mean of Q61l, Q70d, Q70f) | .838 |
| Work resources | Job control index (mean of Q54a-c, Q61f) | .547 |
| Skill discretion index (mean of Q53c, Q53e-f, Q61i) | .625 |
| Participation index (mean of Q61c-d, Q61n) | .820 |
| Rewards | Fair pay (Q89a) | .629 |
| Career perspective (Q89b) | .637 |
| Job security (Q89g) | .263 |
| Exhaustion | Exhaustion (Q90d) | N/A |
| Engagement | Vigor (Q90a) | .772 |
| Dedication (Q90b) | .742 |
| Absorption (Q90c) | .515 |
| General self-rated health | Health in general (Q75) | N/A |
| Number of health symptoms | Sum score (based on Q78a-i) | N/A |
| Sickness absence | Logarithmized item (ln(1+Q82)) | N/A |
| Presenteeism | Logarithmized item (ln(1+Q84b) or 0 if Q84a=”No”) | N/A |
| Sleep quality | No difficulty falling asleep (Q79a) | .759 |
| Not waking up repeatedly during the sleep (Q79b) | .764 |
| Not waking up with a feeling of exhaustion and fatigue (Q79c) | .752 |
| Well-being | Feeling cheeful and in good spirits (Q87a) | .797 |
| Feeling calm and relaxed (Q87b) | .786 |
| Feeling active and vigorous (Q87c) | .826 |
| Wake up feeling fresh and rested (Q87d) | .767 |
| Life filled with interesting things (Q87e) | .688 |