

International Ergonomics Association 21st Triennial Congress



Digital solutions for workplace mental health promotion during COVID-19 pandemic: Taxonomy and Human Factors issues

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Session 4D: COVID-19

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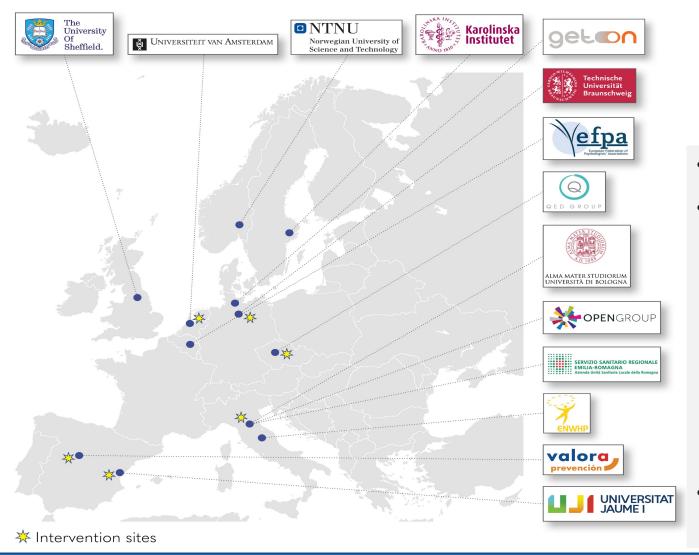


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The H-WORK project





MULTILEVEL INTERVENTIONS
TO PROMOTE MENTAL HEALTH
IN SMEs AND PUBLIC WORKPLACES

- EU Horizon 2020
- 14 partners, 9 European countries:
 - 7 Universities (mostly I/O psychologists)
 - 2 European network of psychologists and workplace health promotion
 - 1 healthcare institution
 - 2 SMEs and spin-off
 - 1 no-profit organization
- Duration: 42 months

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Digital-based solutions for workplace mental health



«Structured actions aiming to promote mental health at work by exploiting the potential offered by digital technologies»

- Interventions initially designed to take place in physical presence and adapted to digital format
- Interventions available via computer or smartphone only





Scenario: Mental health during COVID-19







- Depression, anxiety, stress
- Concern about job insecurity and personal safety



Public safety rules:

- Physical distancing
- Avoidance of social gatherings

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Digital-based interventions for workplace mental health



Electronic Journal of Applied Statistical Analysis Vol. 13, Issue 03, December 2020, 682-712 DOI: 10.1285/i20705948v13n3p682

Smartphone-based interventions for employees' well-being promotion: a systematic review

Giulia Paganin*a,b and Silvia Simbulaa,b

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^bBicocca Center for Applied Psychology, University of Milano-Bicocca



JOURNAL OF MEDICAL INTERNET RESEARCH

Original Paper

Improving Employee Well-Being and Effectiveness: Systematic Review and Meta-Analysis of Web-Based Psychological Interventions Delivered in the Workplace

Stephany Carolan, MSc; Peter R Harris, PhD; Kate Cavanagh, DPhil, DClinPsych

Review

Scand J Work Environ Health. 2019;45(6):560–576. doi:10.5271/sjweh.3839

Effectiveness of occupational e-mental health interventions: a systematic review and meta-analysis of randomized controlled trials

by Elena A Phillips, MSc, MA, 1 Vladimir S Gordeev, MD, PhD, 2.3 Jonas Schreyögg, MD, PhD 1

JOURNAL OF MEDICAL INTERNET RESEARCH

Heber et al

Original Paper

The Benefit of Web- and Computer-Based Interventions for Stress: A Systematic Review and Meta-Analysis

School of Psychology, University of Sussex, Brighton, United Kingdom

Elena Heber^{1,2,3}, PhD; David Daniel Ebert^{2,4}, PhD; Dirk Lehr^{1,2}, PhD; Pim Cuijpers^{2,5}, PhD; Matthias Berking^{2,4}, PhD; Stephanie Nobis², PhD; Heleen Riper^{2,5,6}, PhD

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A conceptual taxonomy for digital WMH promotion



Table 1. Taxonomy of workplace mental health digital technologies (DTs) and HF/E issues.

| Functional category | DTs for assessment and intervention: DTs for externally provided interventions, stress self-management strategies, and to reformat interventions; |
|-----------------------------------|--|
| | • DTs for remote work: considering differences and similarities with mandatory and non-mandatory home working and distributed working. |
| | |
| Cross-cutting HF/E issues | Individual: acceptance, adoption, adherence, digital skills, digital fatigue, informational over-exposure, technological readiness, usability perceptions; |
| | • Organizational: availability of technological infrastructure, organizational culture, organizational support, organizational openness towards innovation. |
| Design and development challenges | Designing based on end users' needs, requirements and preferences; |
| | • Ensuring fit between technology and organizational context; |
| | • Embedding confidentiality, data protection and privacy by design. |

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Human Factors and Ergonomics issues



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Research and practical implications



Research implications:

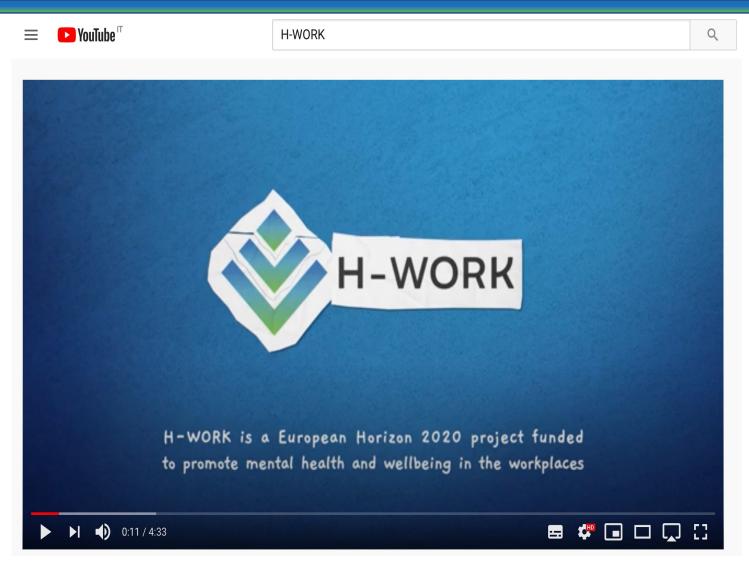
- Future investigation of digital-based interventions' working mechanisms
- Further empirical support for the proposed taxonomy

Practical implications:

- User-centered design
- Overview of actionable solutions for occupational mental health practitioners







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