

EFFECTS OF PSYCHOSOCIAL DETERMINANTS OF HEALTH AT WORK ON WELL-BEING OVER TIME: A SYSTEMATIC REVIEW OF THE LITERATURE WITH NARRATIVE SYNTHESIS

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BACKGROUND & OBJECTIVES

Time is a central issue on the research on psychosocial determinants of health at work because:

- There is a need to deepening the knowledge of the pathological process dynamics;
- There is an intrinsic complex web of interactions.

These are only possible through **longitudinal studies** and the use of sophisticated statistical analysis.

This review aims to collect and systematize up-to-date scientific information on the effects of psychosocial determinants of health at work on workers' health and well-being over time.

RESEARCH QUESTION

How did the psychosocial determinants of health at work affected the Well-being of workers **over time**?

METHODS

Inclusion and exclusion criteria were defined (table 1), and a search was performed on the Medline databases via PubMed,

Embase, PsycInfo, Google Scholar and also manual searches in journals in the area were conducted. The analysis of titles and abstracts to identify articles that met the inclusion and exclusion criteria was carried out in double.

Eligibility criteria (studies with a longitudinal design, in less than three different observation moments) and quality criteria (adapted from the STROBE checklist) were also established.

	Inclusion criteria	Exclusion criteria
Study type	A longitudinal study with panel data: a study in which the dependent variable is measured in the same individual in at least three different moments.	Qualitative studies, case studies, cross-sectional studies, systematic reviews, clinical trials, longitudinal daily follow-up studies.
Population	Working population > = 16 years.	Unemployed, students, persons aged <16 years.
Exposition	Characteristics of the psychosocial environment at work: Job Demands, Job control, Supervisor support, Coworker support, Work-Family Conflict	Bullying, Workplace violence;
Results	Depression, depressive states, sleep disorders, somatic complaints, social dysfunction, anxiety, adjustment problems.	Severe mental illness; Neurological disease; burnout; commitment; engagement;
Publication type	Scientific journal articles	Books, book chapters, commentaries, editorials and dissertations.

PICO – Population, Interventio/Exposure, Comparison/Control, Outcome – adapted.

RESULTS

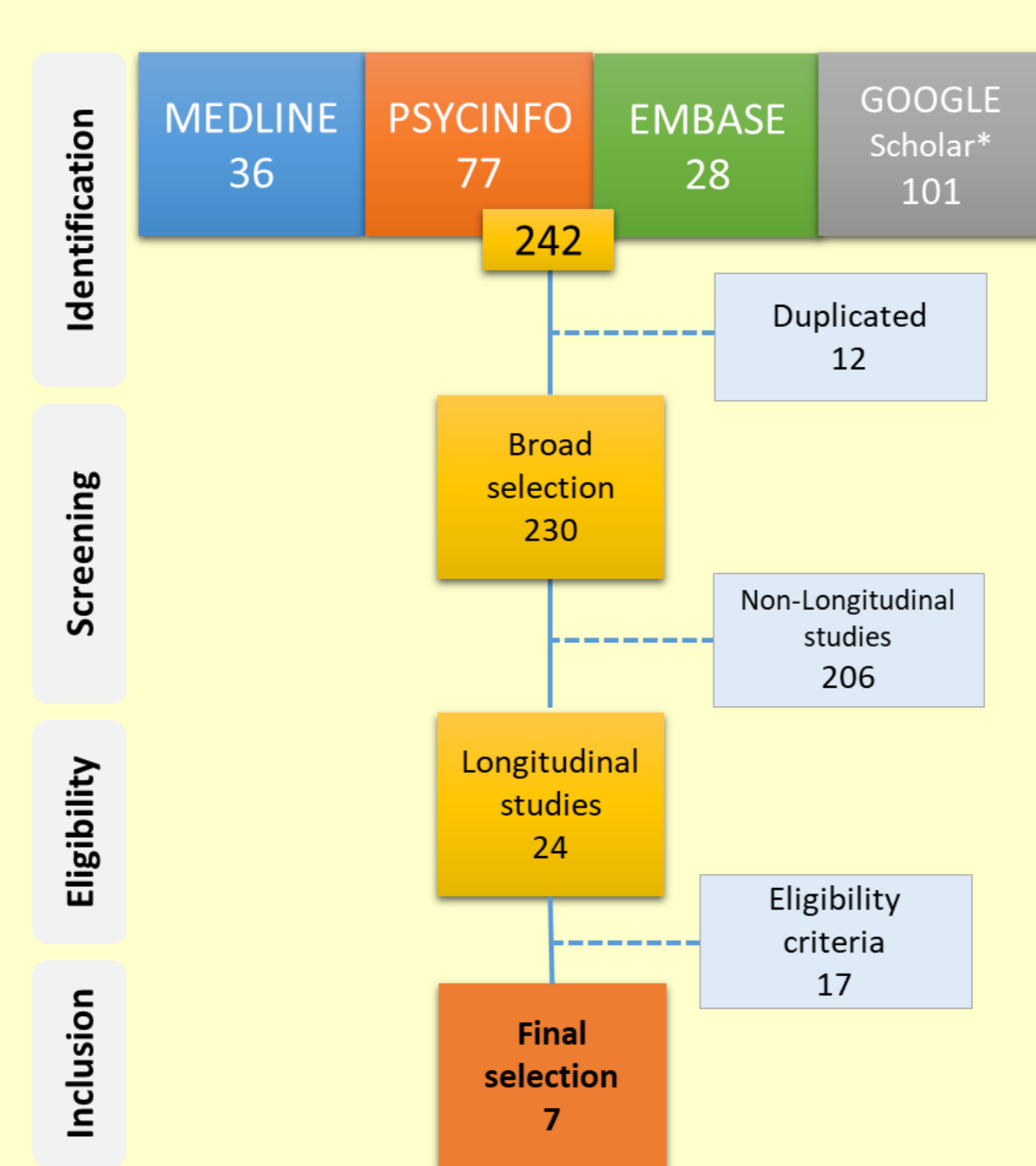


Figure 1 - Flow diagram for articles selection

We identify 242 articles but only seven longitudinal studies met the inclusion criteria and more than 50% of previously defined quality criteria. The selection was performed by the two authors independently.

Table 2: Effects of psychosocial determinants of health at work on well-being over time: summary

Factor	(Stansfeld et al. 1999)	(de Lange et al. 2004)	(Magee et al. 2012)	(Zhang et al. 2014)	(Airila et al. 2014)	(Matthews et al. 2014)	(Winkler et al. 2015)
Job demands	-	-	ND	NS	-	NS	NS
Job control	0	0	ND	NS	NS	NS	NS
Supervisor support	+	0	ND	NS	+	NS	+
Coworkers support	+++	NS	ND	NS	NS	NS	+
Interpersonal relationships	NS	NS	NS	NS	-	NS	NS
Personality	0	NS	NS	NS	NS	NS	NS
Work resources*	NS	NS	NS	NS	+	NS	NS
Information from supervisor	+	NS	NS	NS	NS	NS	NS
Sleep disturbances	NS	NS	NS	NS	+	NS	NS
Optimism	NS	NS	NS	NS	+	NS	NS
Work-Family conflict	NS	NS	NS	-	NS	- direct + lagged	NS
Work-family interface	NS	NS	+/-	NS	NS	NS	NS
Work-family facilitation	NS	NS	+ cross-sectional 0 longitudinal	+	NS	NS	NS
Effort-Reward Imbalance	-	NS	NS	NS	NS	NS	NS

NS – Non studied ND Non-disaggregated results. +/- Mediates 0 No effect
+ Well-being increases when factor increases - Well-being increases when factor decreases

CONCLUSIONS

- High values of the Job Demands were consistently associated over time with the decrease in Well-being, and the Job Control varied inversely with the well-being, but not significantly.
- Supervisor support was associated with high Well-being values in only three of the four studies that analyzed that dimension, but Coworkers support only revealed a meaningful and positive association with well-being in one of two studies.
- The Work-Family Conflict dimensions (Strain-Based Conflict and Time-Based Conflict) had direct effects on the adjusted analyses, but a 6 month time-lag effect in one study attributed by the authors to recovery effects.

References: Airila, A. et al., 2014. *Developmental trajectories of multisite musculoskeletal pain and depressive symptoms: the effects of job demands and resources and individual factors.* *Psychology & health*, 29(12), pp.1421–41.; de Lange, A.H. et al., 2004. *The relationships between work characteristics and mental health: examining normal, reversed and reciprocal relationships in a 4-wave study.* *Work & Stress*, 18(2), pp.149–166.; Magee, C. a. et al., 2012. *The association between job demands/control and health in employed parents: The mediating role of work-to-family interference and enhancement.* *Journal of Occupational Health Psychology*, 17(2), pp.196–205.; Matthews, R. a, Wayne, J.H. & Ford, M.T., 2014. *A Work – Family Conflict / Subjective Well-Being Process Model : A Test of Competing Theories of Longitudinal Effects A Work – Family Conflict / Subjective Well-Being Process Model : A Test of Competing Theories of Longitudinal Effects.* *Journal of Applied Psychology*; Stansfeld, S. et al., 1999. *Work characteristics predict psychiatric disorder: prospective results from the Whitehall II study.* . 3, pp.302–307; Twisk, J.W.R., 2013. *Applied Longitudinal Data Analysis for Epidemiology.* Cambridge: Cambridge University Press; Verbeek, J., Ruotsalainen, J. & Hoving, J.L., 2011. *Synthesizing study results in a systematic review.* *Scandinavian Journal of Work, Environment & Health*, 38(3), pp.314–323; Winkler, E. et al., 2015. *Changes in Leadership Behaviors Predict Changes in Job Satisfaction and Well-Being in Low-Skilled Workers: A Longitudinal Investigation.* *Journal of Leadership & Organizational Studies*, 22(1), pp.1–16; Zhang, X.-C. et al., 2014. *Relationships Between Bidirectional Work-Family Interactions and Psychological Well-Being.* *Journal of Personnel Psychology*, 13(2), pp.87–96.