Work and Health
from a life-course perspective

Prof. dr. Ute Bültmann
University Medical Center Groningen, University of Groningen
Department of Health Sciences, Community & Occupational Medicine
Groningen, The Netherlands

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How do we support healthy labour market participation?

- Work, Health and Society
- Good Work and Good Health
- Life-course perspective
- Further progress
Being sufficiently healthy is a condition for work, and maximizing healthy life as a proportion of total life is therefore a desirable goal for individuals and society.
Work, health and society

Work and Health are **fundamental to life**.

Work and Health are **interdependent**.

Work and Health are **shaped by the context(s)**.
Overall Societal Context

Culture and politics

Workplace System
Work relatedness, employees assistance plans, workplace accommodation

External Environment
Organization
Department
Job Position

Worker with a work disability

Compensation Agent
WCB/Insurance Case Worker
Regulations of jurisdiction
Provincial and Federal Laws

Legislative and Insurance System
Society's Safety Net

Healthcare System
Variety of care management
Interdisciplinary and Interorganizational Team
Multidisciplinary Team
Other Healthcare Professionals
Attending Physicians

Personal System / Personal Coping

Physical
Cognitive
Affective
Social Relationships

(Loiselet al, J Occup Rehabil, 2005)
“Help workers to participate in work and to extend working life in good health”
It sounds easy, but is complex

- It requires all key stakeholders to work together.

- Complex reality in which health affects the working life and the working life affects health.

- Some groups in society more advantaged (good work & health), others more disadvantaged (poor work & health).

- Resources and opportunities are not equally distributed for all individuals in a society.
Challenges to building a society of good work and good health

1. To minimise ill-health and its effects on work functioning.

1. To ensure good physical and psychosocial work environments.

2. To accomplish 1 and 2, make sure that all solutions work for workers and families at the top and the bottom of society and throughout the life-course.
Being sufficiently healthy is a condition for work, and maximising healthy life as a proportion of total life is therefore a desirable goal for individuals and society.

Dame Carol Black
“Help workers to participate in work and to extend working life in good health”

Key challenges:

- (Chronic) health problems
- Changing work and labour markets
- Socio-economic gradient
Demographic challenges

- Increasing life expectancy ≠ healthy life expectancy
- More chronic diseases, but less disability
- People live longer with a chronic disease
- Socio-economic (health) gradient
Life expectancy (in years)

Men

Women

Educational level (from low to high)

- years without disabilities
- years with disabilities

Statistics Netherlands 2008
Socio-political changes

Paradigm shift in The Netherlands and many other countries

Compensation model
(benefits for lost-time from work, early retirement pension)

Participation model
(enhancing return-to-work, stay-at-work, increasing retirement age)
Labour force challenges

Increasing awareness
- ageing labour force in industrialized countries
- changing work and labour markets (e.g., self-employed)
- shortage in labour force (e.g., health care professionals)
- increasing work-home disbalance (e.g., informal care)

→ Inclusion of more older workers and workers with a (chronic) health condition

→ Take care of “starters” at the labour market
Why a life-course lens for looking at work and health?

A person’s health does not start when work begins!

Where a person works depends on where the person grew up, who the person grew up with and the education.

A person’s working life is preceded by childhood and adolescence with schooling and training and is followed by retirement and older age.
Being sufficiently healthy is a condition for work, and maximising healthy life as a proportion of total life is therefore a desirable goal for individuals and society.

Dame Carol Black
Why a life-course lens for looking at work and health?

What happens before a person enters the workforce affects both the health resources a person brings to work and the work opportunities.

What happens when a person retires from the first work career affects health and the next work career.

Quality of life in older ages is partly determined by what is happening earlier in life, both before and during the working life.
Life-course components

Sensitive period(s)

Accumulation of health risks/advantages over time

Transitions

Trajectories

Ben-Shlomo & Kuh, 2002; Amick & Lavis, 2000
Working life-course and health

- Social context(s)
- Political changes
- Global economy changes
- All affect labour markets
Three research examples

TRAILS

SHARP-at work

LifeLines
Being sufficiently healthy is a condition for work, and maximising healthy life as a proportion of total life is therefore a desirable goal for individuals and society.

Dame Carol Black
Mental health from a life-course perspective: the transition from school to work

1. Mental health and educational attainment in adolescence

2. The educational or employment status of young adults: history of mental health problems matters
TRAILS

TRacking Adolescents’ Individual Lives Survey

multidisciplinary research on the psychological, social and physical development of children towards adulthood
Objectives

1. To examine the prospective association of mental health problems at age 11 with educational attainment of adolescents at age 19

2. To investigate the prospective association of changes between age 11 and 16 in mental health problems with educational attainment at age 19
Results - 1

Mental health problems at age 11 and educational attainment (low vs. high) at age 19

<table>
<thead>
<tr>
<th></th>
<th>Total sample</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Externalizing problems</td>
<td>1.31 (0.95-1.81)</td>
<td><strong>1.61</strong> (1.04-2.50)</td>
<td>0.95 (0.56-1.62)</td>
</tr>
<tr>
<td>Internalizing problems</td>
<td>0.79 (0.58-1.07)</td>
<td>0.84 (0.63-1.34)</td>
<td>0.80 (0.51-1.24)</td>
</tr>
<tr>
<td>Attention problems</td>
<td><strong>2.29</strong>* (1.67-3.13)</td>
<td><strong>1.88</strong>* (1.17-3.02)</td>
<td><strong>2.82</strong>* (1.82-4.36)</td>
</tr>
</tbody>
</table>

- * p < 0.05; ** p < 0.01; *** p < 0.001

Model adjusted for age, gender, IQ, parental educational level, physical health, chronic disease, internalizing or/and externalizing or/and attention problems
Results - 2

Boys:
- Increasing **externalizing and attention** problems between age 11 and 16 predict low educational attainment at age 19

Girls:
- Increasing **internalizing** problems between age 11 and 16 predict low educational attainment at age 19
Objectives

1. To identify and compare the mental health trajectories of young adults per educational or employment status.

2. To compare the mental health trajectories of the different educational and employment status.
Measures

Education or employment status:

1) At school or
   At work with basic educational level
2) At work without BEL or
   Neither in Education, Employment or in Training
Total problems
Conclusion

Young adults with high-stable trajectories of mental health problems from age 11 to age 19 are at risk for adverse employment outcomes.

Policy and practice recommendations:
- Detection of mental health problems at young age is important
- Mental health problems have to be monitored over time, especially when problems increase during puberty
WORK – Trails: unique

Transitions and trajectories
+ Social context

- Starters at the labor market
- Mental health >>> WORK >>> Mental health
Being sufficiently healthy is a condition for work, and maximising healthy life as a proportion of total life is therefore a desirable goal for individuals and society.

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Mental health and work

- High sickness absence and work disability
- Circa 20% recurrence of sickness absence after return to work
- Not able to function at full capacity
- Large burden arises from lost productivity at work (4 hrs/week, $36 billion US)

Sustainable return to work and work functioning

Abma et al., 2013, 2012; Hees et al., 2012; Arends et al., 2012; Roelen et al., 2012; Koopmans et al., 2010 Bültmann et al., 2007
**SHARP-at work intervention**

- **Aim**
  - relapse prevention in employees who have returned to work

- **Intervention**
  - extension of *Dutch OP guideline for managing mental health problems*
  - **focus**: active guidance of workers by OP’s (in collaboration with ArboNed)
  - **specific attention**: work problems + supervisor involvement

Arends et al., 2010
## Incidence of recurrent sickness absence

<table>
<thead>
<tr>
<th></th>
<th>0-3 months</th>
<th>3-6 months</th>
<th>6-12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>SHARP</td>
<td>yes 11%</td>
<td>yes 21%</td>
<td>yes 34%</td>
</tr>
<tr>
<td></td>
<td>no 89%</td>
<td>no 79%</td>
<td>no 66%</td>
</tr>
<tr>
<td>CAU</td>
<td>yes 22%</td>
<td>yes 39%</td>
<td>yes 47%</td>
</tr>
<tr>
<td></td>
<td>no 78%</td>
<td>no 61%</td>
<td>no 53%</td>
</tr>
</tbody>
</table>

**N=80**  
**N=78**  
**N=75**  
**N=72**  
**N=71**  

**OR = 0.40, 95% CI 0.20 - 0.81**  
(adjusted for age, sex, educational level, baseline sickness absence days, mental health complaints)

Arends et al., 2013a, 2013b
Results: work role functioning

Arends et al., 2014
Conclusions and implications

- Both groups had low scores on work functioning at baseline, but improved during 1-year follow-up.

- Despite improvement over time, work functioning is rather low compared to the healthy population.

Careful attention needed for work functioning after RTW by OH professionals and the workplace to support workers after their RTW.
Classes of Work Role Functioning

preliminary results
Being sufficiently healthy is a condition for work, and maximising healthy life as a proportion of total life is therefore a desirable goal for individuals and society.

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LifeLines: Healthy Ageing at work
LifeLines Cohort & Biobank

- Prospective cohort study in Northern NL
- 165,000 participants, 3-generation design
- Follow-up: 30 years
- Unique data collection
# Socio-demographic characteristics

<table>
<thead>
<tr>
<th></th>
<th>Total group (N=94516)</th>
<th>Working population&lt;sup&gt;1&lt;/sup&gt; (N=58082)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean age (SD)</td>
<td>44.6 (12.5)</td>
<td>42.2 (9.9)</td>
</tr>
<tr>
<td>range</td>
<td>18 - 93</td>
<td>18 - 86</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>female</td>
<td>55509 (58.7%)</td>
<td>31956 (55.0%)</td>
</tr>
<tr>
<td>male</td>
<td>39007 (41.3%)</td>
<td>26126 (45.0%)</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>28508 (30.9%)</td>
<td>13375 (23.4%)</td>
</tr>
<tr>
<td>medium</td>
<td>36574 (39.6%)</td>
<td>23954 (41.9%)</td>
</tr>
<tr>
<td>high</td>
<td>27187 (29.5%)</td>
<td>19819 (34.7%)</td>
</tr>
</tbody>
</table>

<sup>1</sup> Working population defined as working >12 paid hours per week
Labour market participation

- Work ≥32, 45.1%
- Work ≥20 - <32, 20.0%
- Work ≥12 - <20, 9.0%
- Work <12, 5.9%
- Unemployed, 2.7%
- Partly disabled, 0.3%
- Fully disabled, 2.0%
- Welfare, 0.5%
- Homemaker, 6.5%
- Retirement, 4.6%
- Study, 1.2%
- Early retirement, 2.0%
Self-rated health and LM participation
### Chronic conditions and LM participation

<table>
<thead>
<tr>
<th>Chronic condition(s)</th>
<th>Working (N=58082)</th>
<th>%</th>
<th>No LM participation (N=20275)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>38934</td>
<td>67.0</td>
<td>9954</td>
<td>49.1</td>
</tr>
<tr>
<td>1</td>
<td>15678</td>
<td>27.0</td>
<td>7137</td>
<td>35.2</td>
</tr>
<tr>
<td>≥2</td>
<td>3470</td>
<td>6.0</td>
<td>3184</td>
<td>15.7</td>
</tr>
</tbody>
</table>
Chronic health conditions

<table>
<thead>
<tr>
<th>Chronic conditions</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental disorders</td>
<td>6932</td>
<td>11.9</td>
</tr>
<tr>
<td>Diabetes</td>
<td>483</td>
<td>0.8</td>
</tr>
<tr>
<td>Cancer</td>
<td>1461</td>
<td>2.5</td>
</tr>
<tr>
<td>Lung disease</td>
<td>5774</td>
<td>9.9</td>
</tr>
<tr>
<td>Musculoskeletal</td>
<td>3737</td>
<td>6.4</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>761</td>
<td>1.3</td>
</tr>
<tr>
<td>None of these</td>
<td>38934</td>
<td>67.0</td>
</tr>
</tbody>
</table>

* Participants could indicate more than 1 chronic condition, preliminary results
Vitality and functioning

Preliminary results
Being sufficiently healthy is a condition for work, and maximising healthy life as a proportion of total life is therefore a desirable goal for individuals and society.

Dame Carol Black
Healthy ageing @ work!

- Focus on all workers from a life-course perspective.
- Improve labour market participation of workers with chronic diseases.
- Prevent work-related health disparities and dysfunction.
- Collaborate with stakeholders in policy and practice.