Prevalence and determinants of insufficient work ability in older HIV-positive and HIV-negative workers

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Background
- HIV-positive individuals experience more age-related comorbidity than the general population, and potentially at an earlier age
- Could influence social participation: HIV-positive people more often unemployed
- Little is known about functioning at work of HIV-positive individuals
- Work ability measures whether someone can physically and mentally cope with demands at work

Objectives
- Examine whether the work ability of older (≥45 years) HIV-positive workers differs from a comparable group of HIV-negative workers
- Explore which determinants are associated with insufficient work ability

Participants included in current analyses
- 264 HIV-positive
- 359 HIV-negative
- Median age 51 (IQR 47-55) years
- Parity unfit for work: 6% among HIV-positive and 3% among HIV-negative group

Methods
- Data collection
  - Socio-demographics, lifestyle, and work-related factors by questionnaire
  - Comorbidities by questionnaire and physical examination
  - HIV-related factors from HIV Monitoring Foundation database
- Statistical analyses
  - Univariable and multivariable logistic regression analyses
  - Multiple multivariable models to identify determinants of insufficient work ability
  - Results may be used to optimize work ability to prevent drop out

Table 1. Health-related determinants of insufficient work ability

<table>
<thead>
<tr>
<th></th>
<th>aOR (95% CI)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stayed home from work past 6 months (ref. never)</td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>1 time</td>
<td>1.45 (0.64-3.25)</td>
<td></td>
</tr>
<tr>
<td>≥2 times</td>
<td>5.85 (2.58-13.27)</td>
<td></td>
</tr>
<tr>
<td>Depressive symptoms (ref. no)</td>
<td>13.36 (6.20-28.75)</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

Table 2. Socio-demographic determinants of insufficient work ability

<table>
<thead>
<tr>
<th></th>
<th>aOR (95% CI)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV-positive (ref. negative)</td>
<td>1.48 (0.80-2.73)</td>
<td>0.22</td>
</tr>
<tr>
<td>Age per 10 years</td>
<td>1.37 (0.76-2.50)</td>
<td>0.30</td>
</tr>
<tr>
<td>Educational level (ref. high)</td>
<td>1.72 (0.83-3.54)</td>
<td>0.05</td>
</tr>
<tr>
<td>Low</td>
<td>2.54 (1.19-5.44)</td>
<td></td>
</tr>
<tr>
<td>Non-Dutch ethnicity (ref. Dutch)</td>
<td>1.80 (0.96-3.39)</td>
<td>0.07</td>
</tr>
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Table 3. Work-related determinants of insufficient work ability

<table>
<thead>
<tr>
<th></th>
<th>aOR (95% CI)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work type (ref. paid employment)</td>
<td></td>
<td>0.02</td>
</tr>
<tr>
<td>Entrepreneur</td>
<td>2.09 (0.84-5.19)</td>
<td></td>
</tr>
<tr>
<td>Partly unfit for work</td>
<td>4.44 (1.52-12.93)</td>
<td>0.001</td>
</tr>
<tr>
<td>Lack of recovery opportunities (tertiles, ref. low)</td>
<td></td>
<td>0.06</td>
</tr>
<tr>
<td>Middle</td>
<td>1.69 (0.66-4.29)</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>3.04 (1.16-7.93)</td>
<td></td>
</tr>
<tr>
<td>Need for recovery (tertiles, ref. low)</td>
<td></td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Middle</td>
<td>1.61 (0.56-4.60)</td>
<td></td>
</tr>
<tr>
<td>High</td>
<td>5.70 (2.28-14.26)</td>
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</tbody>
</table>

Results
- Overall prevalence of insufficient work ability in this study was 8% (8% among HIV-positive and 7% among HIV-negative workers)
- No differences in the proportion of HIV-positive and HIV-negative individuals with insufficient work ability were found
- Our HIV-positive study group may be a selection of healthier people than those that already dropped out of the working process at a younger age
- HIV-positive participants were more often partly unfit for work, which may have enabled them to be more in balance with requirements at work
- Several work-related determinants of work ability were identified in this study. Results may be used to optimize work ability to prevent drop out

Conclusions
- Examined which determinants are associated with insufficient work ability (aOR 6.13, 95% CI 1.48-25.26)

Participants included in current analyses
- Partly unfit for work: 6% among HIV-positive and 3% among HIV-negative group
- Median time since HIV diagnosis 11.8 (IQR 6.0-16.3) years
- 96% had an undetectable viral load

Prevalence of insufficient work ability was 8% (8% among HIV-positive and 7% among HIV-negative workers)
- HIV-positive 9%
- HIV-negative 7%

Multivariable analyses
- Several determinants of insufficient work ability identified (Table 1, 2, 3)
- Lifestyle factors were not associated with work ability
- HIV-related factors, only HIV-related stigma at work was significantly associated with insufficient work ability (aOR 6.13, 95% CI 1.48-25.26)

Study population
- Data from ongoing AGElv Cohort Study in persons ≥45 yrs
- HIV-infected AMC outpatient clinic attendants
- HIV-uninfected Amsterdam STI outpatient clinic attendants, and existing participants of Amsterdam Cohort Studies on MSM and drug users
- Baseline data collected between 2010-2012

Inclusion criteria: working age (45-65 years) and participating in paid work

Outcome
- Work ability: central item of Work Ability Index (WAI)
- Rate current work ability related to lifetime best (0-10)
- Dichotomized into insufficient (<6) and sufficient (≥6)