A Literature Review on the Ageing Workforce

By
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Outline

• Introduce the aims of the literature review.

• Detail the methods and results employed.

• Outline the key findings.
The aim of the literature review was to review the existing research and policy documents relating to the ageing workforce. Consideration was given to the ageing workforce in jobs with a high physical job demand.

**Physical capacity**
1. Individual differences (e.g. height, mass, sex)
2. Ergonomic design/
3. Equipment availability to reduce physical demands
4. Ability to maintain required physical fitness

**Cognitive Capacity**
1. Experience
2. Personality
3. Culture
4. Education

**Health**
1. Lifestyle
2. Smoking habits
3. Physical activity level
4. Genetics
5. Age
6. Education

**Nature of the job**
1. Physical
2. Mental
3. Environment
4. Shift patterns

**Successful job performance**

**Employer Support**
1. Job recruitment
2. Raising awareness
3. Changing attitude & diversity
4. Education & training
5. Career development & mobility management
6. Remuneration
7. Flexible working
8. Health protection, promotion & workplace design
9. Redeployment & retention
10. Exit strategies & transitions to retirement

**Figure 1.** The predictors of successful job performance and the interaction of these factors.
Methods

Figure 2. Numbers of articles included and excluded at each stage.

<table>
<thead>
<tr>
<th>Level</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1++</td>
<td>High quality meta-analyses of case controlled or cohort studies</td>
</tr>
<tr>
<td>1+</td>
<td>Meta-analyses of case controlled or cohort studies</td>
</tr>
<tr>
<td>1-</td>
<td>Meta-analyses with high risk of bias</td>
</tr>
</tbody>
</table>
| 2++   | High quality systematic reviews of case control or cohort studies  
Or  
High quality case control or cohort studies with a very low risk of confounding or bias and a high probability of that the relationship is causal |
| 2+    | Well conducted case control or cohort studies with a low risk of confounding bias and a moderate probability of that the relationship is causal |
| 2-    | Case control or cohort studies with a high risk of confounding bias and a significant risk that the relationship is not causal |
| 3+    | Analytical studies without systematic review e.g. Reviews detailing scientific literature without reference to the methodology used to include the literature. |
| 3-    | Non-analytic studies, e.g. case reports, case series |
| 4     | Policy documents without systematic review. Directives, descriptive, or trend data documents |
| 5     | Expert opinion |
This review of the literature is divided into three key areas:

**Part A)** The physiological and cognitive aspects of ageing:
Aerobic; muscular capacity; thermoregulation; cognitive function.

**Part B)** The consequences of ageing:
Health and physical activity; accidents, injury and absence; tolerance to work regimes.

**Part C)** The promotion of active ageing within the workforce:
Role of OH; recommendation from the literature and policy.
## Results

<table>
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<tr>
<th>Literature source (refer to table 1)</th>
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<th>Part B</th>
<th>Part C</th>
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<td>117</td>
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Key Points

• Classifying someone as an older worker on the basis of chronological age is often meaningless.

• Occupational capability depends on genetics, health habits, illness, environment and occupation.

• The literature does not conclusively support that ageing results directly in a negative effect on work performance.

• The health and physical activity of the worker appear to be the most important factors in determining labour longevity and demographics and ensuring work ability across occupations and sexes.
Key Points

• There is no clear relationship between age, accident rates, injury and absence.

• The area where there appears to be a clear difference between younger and older workers is that of recovery from work-related demands.

• There is a large literature providing recommendations and guidelines on the employment of older workers. However, it is often based on relatively weak scientific evidence.
Key Points

- The management of older workers should not be based solely in workers over a certain age, but as an ongoing continuum through the working life of the employee e.g. Increased activity should be promoted early in adulthood to ensure the maintenance of physical performance in later life.

- It was possible to identify a number of key trends in the policy documents dealing with the management of older workers; these are highlighted in the main text.

- Those interventions that have yielded the best results have used task analyses to come up with a multifaceted approach.
Thank you for listening.
Introduction

- It has been suggested that the physical requirements of work should decline with advancing age (Shephard 1999). However, it has been reported that across Europe exposure to high physical work requirements is still common across all ages.

- Nearly 50% of ageing workers (aged ≥45 years) exposed to repetitive work, approximately 30% of these workers reported poor work postures and 15% to 20% were handling heavy loads at least 50% the time (Ilmarinen, 2002).

- Many occupations place a physical demand on employees, thus in an ageing workforce, the preservation of the physical attributes necessary to undertake required tasks and promote the longevity of experienced workers can be a key objective (de Zwart et al., 1997; Johnson et al., 2011; McCarthy & Greiner, 2013).