

Appendix A. Evidence summary

| Summary of new evidence from 2-year surveillance | Summary of new intelligence from 2-year surveillance (from topic experts or initial internal intelligence gathering) | Impact |
|--|--|---|
| Recommendation 1.1 Organisational commitment evidence statements ES1.1, ES1.3, ES3.2d; EP1, EP4; IDE | | |
| No evidence identified. | No expert feedback was provided by the expert questionnaire that related to this area. No additional intelligence indicated that this area required updating. | Impact decision: No new evidence was identified that would affect recommendations. |
| Recommendation 1.2 Physical work environment evidence statements ES3.2d; EP2, EP4, EP5; IDE | | |
| No evidence identified. | No expert feedback was provided by the expert questionnaire that related to this area. No additional intelligence indicated that this area required updating. | Impact decision: No new evidence was identified that would affect recommendations. |
| Recommendation 1.3 Mental wellbeing at work evidence statements ES1.1, ES2.1, ES3.1c, ES3.2b, ES3.2c, ES3.4; EP1, EP4, EP5; IDE | | |
| No evidence identified. | No expert feedback was provided by the expert questionnaire that related to this area. No additional intelligence indicated that this area required updating. | Impact decision: No new evidence was identified that would affect recommendations. |
| Recommendation 1.4 Fairness and justice evidence statements ES3.3; EP4, EP5; IDE & ES6.2a, ES6.2c; EP9, EP11; IDE [New] | | |
| Two observational studies ^{1,2} were identified that were relevant to the recommendation: A cross-sectional study ¹ examined the relationship | No expert feedback was provided by the expert questionnaire that related to this area. No additional intelligence indicated that this | Impact decision: No new evidence was identified that would affect recommendations. |

| Summary of new evidence from 2-year surveillance | Summary of new intelligence from 2-year surveillance (from topic experts or initial internal intelligence gathering) | Impact |
|---|---|---|
| <p>between organisation justice ((OJ) ie the extent to which employees perceive workplace procedures, interactions and outcomes to be fair in nature) and health outcomes for insomnia in Japanese employees (n=1893). The study found that employees reporting low overall OJ had a statistically significant higher risk of insomnia; all four justice components were associated with both insomnia and sleep induction problems.</p> <p>A longitudinal study² with an average 6.4 year follow-up assessed the relationship between organisation justice and disability pension in Finnish employees (n=24,895). The study found there was a significant association between higher organisational justice and lower risk of disability pensioning.</p> | <p>area required updating.</p> | <p>The new evidence indicate that perceived organisation justice and related behaviour and decision-making at the workplace are associated with positive health and work-related outcomes. Although these associations may be attributable to a wider range of favourable work characteristics, the findings are broadly supportive of the recommendation on fairness and justice and would also support the need for effective manager training in organisational justice (see recommendation 1.9 below). The current observational evidence is in line with the recommendation.</p> |
| <p>Recommendation 1.5 Participation and trust evidence statements ES2.4, ES3.1d, ES3.2c, ES3.3; EP2, EP4; IDE</p> | | |
| <p>One observational study³ was identified that was relevant to the recommendation:</p> <p>A 6-month longitudinal study³ which involved employees (n=733) from 2 organisations investigated whether work engagement influences self-perceived health, work ability, and sickness absence. Low work engagement was associated with low work ability and long-term sickness absence.</p> | <p>No expert feedback was provided by the expert questionnaire that related to this area.</p> <p>No additional intelligence indicated that this area required updating.</p> | <p>Impact decision: No new evidence was identified that would affect recommendations.</p> <p>The new evidence which indicates that employee engagement may contribute to better work ability and reduced sickness absence supports current guideline recommendations that encourage greater workforce participation in workplace activities.</p> |
| <p>Recommendation 1.6 Senior leadership evidence statements ES3.1a, ES3.1e, ES3.2a, ES3.2b, ES3.2c, ES3.2e, ES3.2f; EP1, EP2, EP4, EP5; IDE</p> | | |
| <p>No evidence identified.</p> | <p>No expert feedback was provided by the expert questionnaire that related to this area.</p> <p>No additional intelligence indicated that this area required updating.</p> | <p>Impact decision: No new evidence was identified that would affect recommendations.</p> |

| Summary of new evidence from 2-year surveillance | Summary of new intelligence from 2-year surveillance (from topic experts or initial internal intelligence gathering) | Impact |
|---|---|--|
| Recommendation 1.7 Role of line managers evidence statements ES1.1, ES2.4, ES3.1a, ES3.1d; EP4, EP5; IDE | | |
| No evidence identified. | No expert feedback was provided by the expert questionnaire that related to this area. No additional intelligence indicated that this area required updating. | Impact decision: No new evidence was identified that would affect recommendations. |
| Recommendation 1.8 Leadership style of line managers evidence statements ES2.4, ES3.2a, ES3.2b, ES3.2c, ES3.2e, ES3.2f, 3.5; EP2, EP4; IDE | | |
| <p>One integrative review⁴ and 4 observational studies⁵⁻⁸ were identified that were relevant to the recommendation:</p> <p>An integrative review⁴ investigated the associations of effective supervisory performance among nurses in long-term care homes across 24 studies (study types and populations not reported in abstract). The analysis revealed that effective nurse supervision had statistically significant, positive effects on the following nurse outcomes: job satisfaction, turnover and intention to quit, decision making and job stress.</p> <p>In a study using cross-sectional national survey data⁵ researchers examined the relationship between authentic leadership (ie self-actualised individuals who are aware of their strengths, their limitations, and their emotions and offer positive work conditions), aspects of work-life, work-related self-efficacy and work-related burnout and emotional well-being among graduate Canadian nurses (n=1009) with less than 3 years of work experience. The study found that authentic leadership had a positive impact on work-life and in turn had positive relationship on</p> | <p>No expert feedback was provided by the expert questionnaire that related to this area.</p> <p>No additional intelligence indicated that this area required updating.</p> | Impact decision: No new evidence was identified that would affect recommendations. The new evidence indicates that positive supervisor style and leadership is associated with positive self-reported, work-related health outcomes. Currently Recommendation 1.8 proposes that certain positive leadership styles are adopted, whilst avoiding negative styles. The evidence would appear to broadly support positive styles as they are associated with relevant employee work-related outcomes. Although these associations may be attributable to a wider range of favourable work characteristics, these findings are broadly supportive of the recommendation on 'leadership style of line managers' and would also support the need for effective manager training on leadership style (see recommendation 1.9 below). The new evidence supports this recommendation, although there is no new evidence to indicate approaches described in the recommendation are effective. |

| Summary of new evidence from 2-year surveillance | Summary of new intelligence from 2-year surveillance (from topic experts or initial internal intelligence gathering) | Impact |
|---|--|--|
| <p>work-related self-efficacy, resulting in better mental health.</p> <p>In a study of cross-sectional data⁸ from the European Working Conditions survey of employees (n=32,770) the associations between supervisor behaviour and employee health was investigated. Overall results indicate that supervisor behaviour has strong associations with musculoskeletal and psychosomatic symptoms; the study indicated that the strongest predictive power regarding these health outcomes was good conflict solving skills, supervisor's work-planning ability and a participative leadership style.</p> <p>A cross-sectional study⁶ of German workers (n=17,060) investigated the association between supportive leadership behaviour (SLB) (not defined in abstract) and presenteeism and absenteeism. The study found that low SLB was associated with higher presenteeism and absenteeism.</p> <p>Cross-sectional data from industrial workers (n=3,331) was used to explore associations between supportive leadership style (not defined in abstract) and self-rated health⁷. Employees perception of poor supportive leadership style was associated with poor work-related health, and although the magnitude of the association was attenuated when work-stress and other confounders were taken into account, the association persisted for sub-groups.</p> | | |
| <p>Recommendation 1.9 Training evidence statements ES1.1, ES2.1, ES3.1c; EP5; ES6.2a, ES6.2c, ES6.3; EP11; IDE</p> | | |
| <p>Three cluster-RCTs⁹⁻¹¹ and one pre- post-test study¹² were identified that were relevant to the recommendation:</p> | <p>No expert feedback was provided by the expert questionnaire that related to this area.</p> | <p>Impact decision: No new evidence was identified that would affect recommendations.</p> |

| Summary of new evidence from 2-year surveillance | Summary of new intelligence from 2-year surveillance (from topic experts or initial internal intelligence gathering) | Impact |
|--|--|---|
| <p>A double-blind cluster-RCT⁹ assessed the effectiveness of a leadership and management program in care home settings for managers in Australia. The programme had 2 related objectives, to further develop manager's leadership and management skills (ie effective leadership) in creating positive workplace relationships and in enabling person-centred, evidence-based care. The outcomes of the study were based on subordinate's (n=503) perceptions of their managers based on surveys at 3 time points, baseline, 9 months from baseline and 9 months after completion. Compared to the control sites there were significant differences in transformational leadership, transactional leadership and passive avoidant behaviour in favour of the intervention. Managers at the intervention sites were also rated significantly higher for leadership outcomes of effectiveness and satisfaction. There were however no differences in staff turnover or patient quality and safety.</p> <p>In a cluster-RCT¹⁰ the effect of management training in organisational justice was evaluated. Participants worked in private manufacturing sectors in Japan, with intervention participants from 23 departments (93 managers and 248 subordinates) and a control group of 23 other departments (91 managers and 314 subordinates). The intervention consisted of a 90 minute session that covered attitudes and behaviours of managers and training in organisational justice. Outcomes were based on procedural, interpersonal, and informational justice and data gathered via self-completed questionnaires of subordinates before and 3 months after intervention. There were no significant differences in scores between groups, across the intervention period (no data reported in abstract). There was however a subgroup difference in the</p> | <p>Initial intelligence gathering identified the following: Pilot study of a randomised trial of a guided e-learning health promotion intervention for managers based on management standards for the improvement of employee well-being and reduction of sickness absence: the GEM (Guided E-learning for Managers) study. This NIHR funded pilot study was also identified through searches which identified a linked study published in BMJ open series. In addition to the outcomes reported in the BMJ, the NIHR report indicated that the fall in WEMWBS score was significantly less among employees whose managers adhered to the intervention than among those employees whose managers did not.</p> | <p>There was limited evidence from 3 cluster-RCTs and one pre- post-test study on the effect of training of managers to improve leadership. The available evidence covered a narrow group of interventions, compared to the wide range of topics identified in the recommendation; the individual studies each covered 1 of the following topics: effective leadership, organisational justice, work-family conflict and health promotion. Across the studies there were mixed results with the evidence providing no clear indication of the effect of training for managers; the new evidence neither supports nor refutes the recommendation. Further evidence is needed on the benefit of training for the key areas of interest.</p> |

| Summary of new evidence from 2-year surveillance | Summary of new intelligence from 2-year surveillance (from topic experts or initial internal intelligence gathering) | Impact |
|---|--|--------|
| <p>lowest tertile group (at baseline) for the interpersonal justice subscale which showed significant improvement.</p> <p>In a pilot mixed-methods cluster-RCT¹¹ researchers investigated the effectiveness of a guided e-learning health promotion intervention for managers in improving employee well-being and reducing sickness absence (the GEM study). Participants were recruited from 4 mental health services. Managers received a facilitated e-learning programme on work-related stress; numbers of no-intervention controls were not reported, although it was stated that 21 of 41 managers from intervention clusters adhered to the intervention. Outcome data was elicited from subordinates (n=350) through surveys adopting 3 measures from the Warwick Edinburgh Mental Wellbeing Scale (WEMWBS), 12-item GHQ and sickness absence <21days from human resources. There was no evidence of effect for the 3 outcome measures.</p> <p>A quasi-experimental (pretest-posttest) study¹² investigated the effect of training supervisors to increase their family-supportive supervisor behaviours. Participants were from health care settings and included supervisors who received the training (number not reported in abstract), who completed ratings of employee job performance, and their subordinates (n=143), who completed surveys at 2 time periods approximately 10 months apart, pre- and post-test. No data were provided in the abstract but it was reported that there were significant and beneficial indirect effects of the training; these benefits were identified for employee job performance, organisational commitment, engagement, job satisfaction and turnover intentions.</p> | | |

| Summary of new evidence from 2-year surveillance | Summary of new intelligence from 2-year surveillance (from topic experts or initial internal intelligence gathering) | Impact |
|---|---|---|
| Recommendation 1.10 Job design evidence statements ES3.1c, ES3.1d, ES3.2c, ES3.4; EP1, EP2, EP4, EP5; ES4.1, ES4.2, ES4.6, ES6.1a, ES6.1b, ES6.2a, ES6.2c, ES6.3, ES6.4a, ES6.4b, ES6.4c, ES6.8c; EP10; IDE | | |
| <p>One observational study¹³ was identified that was relevant to the recommendation:</p> <p>A longitudinal study¹³ with 2 year follow-up examined whether lower work ability and engagement predict the use of company policies on reduced working hours among older employees aged 45-64 (n=6922). The study found that there was an association between lower work ability and increased usage of the policy 'reduced working hours'. The study also identified that use of the policy 'exemption from evening/night work' was associated with a higher level of work engagement 1 year later. In summary, policies on work patterns may be protective for employees with lower work ability.</p> | <p>No expert feedback was provided by the expert questionnaire that related to this area.</p> <p>No additional intelligence indicated that this area required updating.</p> | <p>Impact decision: No new evidence was identified that would affect recommendations.</p> <p>Evidence from 1 longitudinal study, which suggests that flexible approaches to work and engagement may be protective for employees with reduced work ability, is broadly consistent with guideline recommendation. NG13 states that flexible working should be used and balanced against the need of employees.</p> |
| Recommendation 1.11 Monitoring and evaluation evidence statements EP1, EP3; IDE | | |
| <p>No evidence identified.</p> | <p>No expert feedback was provided by the expert questionnaire that related to this area.</p> <p>No additional intelligence indicated that this area required updating.</p> | <p>Impact decision: No new evidence was identified that would affect recommendations.</p> |
| NEW Recommendation on approaches to support the health and wellbeing of older employees. | | |
| <p>A quasi-experimental controlled before and after study¹⁴ investigated the effectiveness of problem-solving based intervention compared to usual support across ageing workers (n=125) (age range not specified in the abstract). The intervention was designed to prolong the working life of ageing employees through increasing awareness of</p> | | <p>New evidence was identified and considered for possible addition to the guideline as a new area for recommendations.</p> <p>The evidence does not have an impact on the area for recommendation.</p> |

| Summary of new evidence from 2-year surveillance | Summary of new intelligence from 2-year surveillance (from topic experts or initial internal intelligence gathering) | Impact |
|--|--|---|
| responsibility for maintaining sustainable working lives. The results indicate that there were no effects on the primary outcomes of productivity, adverse effects on work ability and vitality. However, there was a significant effect for 3 of the secondary outcomes, work attitude, self-efficacy and skill discretion. | | Insufficient evidence is available to add this recommendation topic to the guideline at the present time. Evidence concerning this topic should be revisited at the next surveillance review. |
| Research recommendations | | |
| How can the implementation of the recommendations made in this guideline be evaluated? What is the effect of interventions and what are the barriers and facilitators to implementing interventions? (UK evidence) | | |
| No evidence was identified that linked to the guideline. | No feedback was provided by the expert questionnaire that related to this area. Intelligence gathering did not identify new evidence. | <i>No new evidence was identified that would affect recommendations.</i> |
| How can outcome measures relating to workplace health and wellbeing be measured? (recommendation for National Institute for Health Research and Economic and Social Research Council) | | |
| No evidence was identified that linked to the guideline. | No feedback was provided by the expert questionnaire that related to this area. Intelligence gathering did not identify new evidence. | <i>No new evidence was identified that would affect recommendations.</i> |
| How can the effectiveness of workplace health policies and programmes be measured? | | |
| No evidence was identified on the design of studies. | No feedback was provided by the expert questionnaire that related to this area. Intelligence gathering did not identify new evidence. | <i>No new evidence was identified that would affect recommendations.</i> |
| How can the design and reporting of the outcomes used in intervention studies be improved, so researchers can identify 'active ingredients'? Which validated tools are effective at consistently measuring success, especially in relation to health and wellbeing, performance, productivity and in economic terms? | | |
| No evidence was identified on validated tools. | No feedback was provided by the expert | <i>No new evidence was identified that would</i> |

| Summary of new evidence from 2-year surveillance | Summary of new intelligence from 2-year surveillance (from topic experts or initial internal intelligence gathering) | Impact |
|---|--|---|
| | questionnaire that related to this area. Intelligence gathering did not identify new evidence. | <i>affect recommendations.</i> |
| Maintaining and improving the health and wellbeing of older employees | | |
| One study was identified that linked to this study area ¹⁴ . This was a quasi-experimental controlled before and after study which investigated the effectiveness of a problem-solving based intervention to support ageing workers | No feedback was provided by the expert questionnaire that related to this area. Intelligence gathering did not identify new evidence. | <i>New evidence was identified but would not affect recommendations.</i> |
| Helping older employees stay in work | | |
| One study was identified that linked to this study area ¹³ . This was a longitudinal study with 2 year follow-up which examined whether lower work ability and engagement predict the use of company policies on reduced working hours among older employees aged 45-64. | No feedback was provided by the expert questionnaire that related to this area. Intelligence gathering did not identify new evidence. | <i>New evidence was identified but would not affect recommendations.</i> |
| Helping older employees plan and prepare for retirement | | |
| No evidence was identified. | No feedback was provided by the expert questionnaire that related to this area. Intelligence gathering did not identify new evidence. | <i>No new evidence was identified that would affect recommendations.</i> |
| Challenging stereotypes and changing attitudes towards older employees | | |
| No evidence was identified. | No feedback was provided by the expert questionnaire that related to this area. Intelligence gathering did not identify new evidence. | <i>No new evidence was identified that would affect recommendations.</i> |

On-going research

Ongoing research was identified through experts and the initial intelligence gathering (NIHR research in progress). If this was within the scope for NG13 it has been included:

- [Human resource management training of supervisors for improving health and well-being of employees](#). A Cochrane systematic review of controlled studies which assess the effect of HRM training for supervisors on employees' psycho-mental stress, absenteeism, and well-being.

References

1. Hayashi T, Odagiri Y, Takamiya T et al. (2015) Organizational justice and insomnia: Relationships between justice components and insomnia symptoms among private company workers in Japan. *Journal of Occupational Health* 57:142-150.
2. Juvani A, Oksanen T, Virtanen M et al. (2016) Organizational justice and disability pension from all-causes, depression and musculoskeletal diseases: A Finnish cohort study of public sector employees. *Scandinavian Journal of Work Environment & Health* 42:395-404.
3. Rongen A, Robroek SJW, Schaufeli W et al. (2014) The Contribution of Work Engagement to Self-Perceived Health, Work Ability, and Sickness Absence Beyond Health Behaviors and Work-Related Factors. *Journal of Occupational and Environmental Medicine* 56:892-897.
4. McGilton KS, Chu CH, Shaw AC et al. (2016) Outcomes related to effective nurse supervision in long-term care homes: an integrative review. *Journal of Nursing Management* 24:1007-1026.
5. Laschinger HKS, Borgogni L, Consiglio C et al. (2015) The effects of authentic leadership, six areas of worklife, and occupational coping self-efficacy on new graduate nurses' burnout and mental health: A cross-sectional study. *International Journal of Nursing Studies* 52:1080-1089.
6. Schmid JA, Jarczok MN, Sonntag D et al. (2017) Associations Between Supportive Leadership Behavior and the Costs of Absenteeism and Presenteeism: An Epidemiological and Economic Approach. *Journal of Occupational and Environmental Medicine* 59:141-147.
7. Schmidt B, Loerbroks A, Herr RM et al. (2014) Associations Between Supportive Leadership and Employees Self-Rated Health in an Occupational Sample. *International Journal of Behavioral Medicine* 21:750-756.
8. Montano D. (2016) Supervisor behaviour and its associations with employees' health in Europe. *International Archives of Occupational and Environmental Health* 89:289-298.
9. Jeon YH, Simpson JM, Li ZC et al. (2015) Cluster Randomized Controlled Trial of An Aged Care Specific Leadership and Management Program to Improve Work Environment, Staff Turnover, and Care Quality. *Journal of the American Medical Directors Association* 16:10.
10. Nakamura S, Somemura H, Sasaki N et al. (2016) Effect of management training in organizational justice: a randomized controlled trial. *Industrial Health* 54:263-271.
11. Stansfeld SA, Kerry S, Chandola T et al. (2015) Pilot study of a cluster randomised trial of a guided e-learning health promotion intervention for managers based on management standards for the improvement of employee well-being and reduction of sickness absence: GEM Study. *Bmj Open* 5:11.
12. Odle-Dusseau HN, Hammer LB, Crain TL et al. (2016) The Influence of Family-Supportive Supervisor Training on Employee Job Performance and Attitudes: An Organizational Work-Family Intervention. *Journal of Occupational Health Psychology* 21:296-308.
13. van dM, L, Leijten FRM et al. (2016) Company Policies on Working Hours and Night Work in Relation to Older Workers' Work Ability and Work Engagement: Results From a Dutch Longitudinal Study with 2 Year Follow-Up. *Journal of Occupational Rehabilitation* 26:173-181.
14. Koolhaas W, Groothoff JW, de B et al. (2015) Effectiveness of a problem-solving based intervention to prolong the working life of ageing workers. *Bmc Public Health* 15:13.