

Out of Sight, and Out of Mind?

Research into Occupational Safety and Health Leadership of Distributed Workers

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- **Implications for pathways to impact**

An examination of occupational safety and health (OSH) leadership of distributed workers

The research problem:

- Nearly half of all workers in Western Europe can be considered distributed workers 129.5million workers (ICD, 2010). - can we apply, adapt or develop suitable leadership models to support occupational safety and health (OSH) for these workers?

Aim:

- Establish parameters of good OSH leadership behaviours in distributed work – line and OSH professionals:
 1. Are current OSH leadership frameworks applicable in the context of distributed working?
 2. What other frameworks or models may be applicable?
 3. Can OSH practitioners deploy appropriate frameworks and models in distributed working contexts to ensure effective OSH leadership from line managers (the cascade)

Outputs:

- Practical toolkit for OSH managers and line managers (Affinity), knowledge disseminated through reports, articles, conferences, launch event etc.

Timeframes: January 2015 to September 2016

Distributed workers

Workers who spend part of their week working away from a main location

Distributed working (Dix & Beale, 1996) tends to be characterised by

- 1) less frequent contact with colleagues and managers,**
- 2) less frequent contact to sources organisational information, and**
- 3) more than one place of work, compared to office, or single location-bound workers.**

Distributed (or remote) workers are a heterogeneous group

Variability in:

- Use of information technology
- Knowledge intensity (KI)
- Levels of intra- and extra-organizational contact
- Location – e.g. roadside, countryside, home, remote office, client's premises, installations, while travelling
- Physical (and temporal) separation from line managers' location
- Not fixed - dynamic

Examples of distributed workers

Public service workers Police, Community Nurses, Social Workers, Local Authorities (housing, street, public spaces maintenance), Public Sector (inspection and regulation)

Utilities, Energy and Telecoms workers (engineering, construction, plant maintenance– roadside, countryside, urban & remote, domestic)

Transportation workers - people and goods (buses, trains, planes, lorries, vans)

Service workers (e.g. surveyors, architects, consultants, sales)

Homeworkers (fixed, flexible, casual)

Many organisations - Delivery drivers, Salespeople.....

Distributed workers are exposed to a variety of risks and hazards

Wide range of **hazards**.....

Holes and poles, chemicals, power (gas, electricity), slips, trips, falls, heavy loads, machinery, the public! (and their dogs)

Harm to self, harm to others

And **risks**

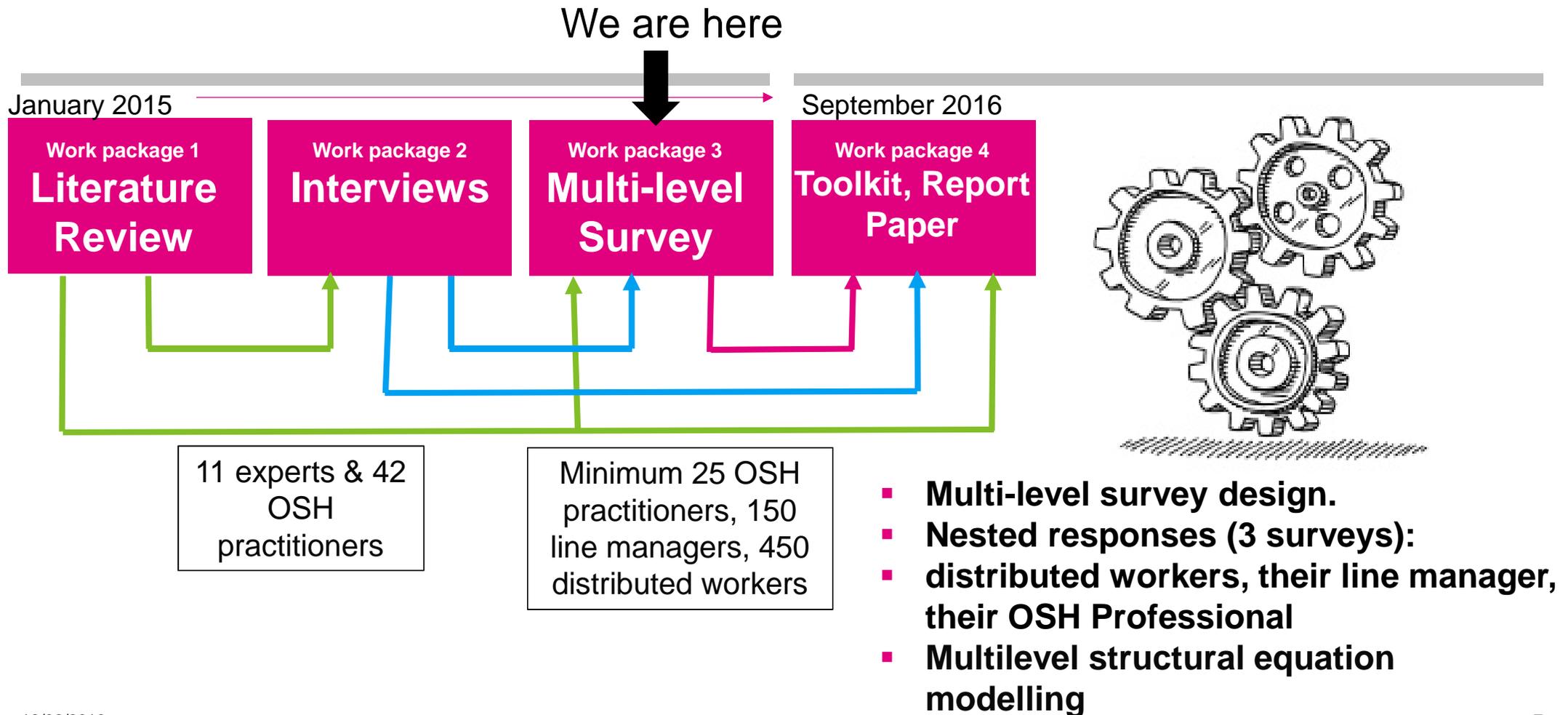
- Many are lone workers (isolation, emergency)
- Many work outdoors (weather conditions and daylight)
- Or travelling (weather conditions, other drivers)
- Dynamic risks, degree of unpredictability

Why Leadership?

- OSH problems for distributed workers
- Most leadership frameworks relational - assumptions of face to face (modelling behaviors)
- Limited opportunity for line and OSH managers to observe or directly intervene with distributed workers

Out of Sight, and Out of Mind?

Research Design - 4 work packages (mixed methods)



Work package 1. The literature Review

- PubMed, Psycinfo, ScholarGoogle and Web of Science
- Empirical papers, published from 1995-Feb 2015, English language, peer reviewed journals
- Example search terms: Distributed, Telework, Telecommute, Mobile work, Digital nomads, Location nomads, Technomads, Road warriors,
- Plus key sectors (e.g. construction), plus OSH keywords, plus leadership/management keywords, plus keywords to focus on workers
- Sifting: Checks and issues resolved through discussion
- Data extraction: Checked
- 923 identified, 23 papers met the inclusion criteria

Literature Review Findings

Research question 1: Are current OSH leadership frameworks applicable in the context of distributed working?

- Perceived support from organisations and managers and good leader-worker relationships predict OSH related outcomes.
- Instrumental support appears important as does knowledge exchange between units. Communication and access to ICTs (especially video-conferencing etc.) may be important for facilitating this
- Transformational leadership important for motivating safe behaviours and well-being, but only if leader is trusted and/or workers focused on their hopes/aspirations
- Leaders' demonstrating commitment to safety (safety climate) important for safety
- Competent leadership related to worker job satisfaction
- Motivation (and motivational strategies such as planning, supervisors using motivating language) predicts safety behaviour/well-being indicators

Literature Review Findings

Research question 2: What other frameworks or models may be applicable to/optimal for OSH leadership of distributed workers?

- **Face-to-face communication and instant messaging related to stress from interruptions for distributed workers/lack of interruptions a positive feature of telework**
- **Communication/support a challenge for distributed working– especially if natural face-to-face communication a problem or ICTs have to be used instead (e.g. for asynchronous working)**
- **Managers workload may get in the way of effective OSH**
- **Remote workers may benefit in many ways if managers also engage in similar distributed work**

Literature Review Conclusion

1. **Overall across the studies: Weak evidence base, Cross-sectional, self-report or small qualitative studies.**
2. **Existing frameworks probably applicable, but need modification for context and problems of distributed work**
3. **Perhaps some aspects of existing models are more important for distributed workers**

Work package 2. Interviews

Interview protocol – developed from literature review and interviews with 11 Experts (academic, policy, industry)

- 42 interviews with OSH Professionals
- 19 organisations (5 small, 14 private, 11 had DW in high and low risk jobs, 3 low risk, remainder high risk)
- Telephone interviews, around an hour, verbatim transcribed.
- Qs. Type of DW (hazards, risks, outcomes), OSH leadership, Line manager OSH leadership, barriers and enablers, Critical Incidents (promotion, prevention, ongoing management, mitigation) Toolkit good practice
- **Data coding** - codes developed in consultation with Steering Group, NVIVO, Inter-rater interpretive validity exercise.
- **Analysis** - close examination against existing leadership frameworks (same, similar, new). Thematic, grouping: barriers, enablers, physical / psychosocial risks

Data analysis - Leadership

Transformational leadership featured strongly with an emphasis on individualised consideration

'It's that constant attempt to make things safe. And also it's talking and engaging with them, what problems do they face, and giving them that confidence that if at any time they feel unsafe or if somebody asks them to do something unsafe, they can say no and stop.'

'You have got to be seen to practice what you preach, and if you don't do that people won't respect you. In a safety environment or any environment. So its making sure that my team, managers, supervisors lead by that example.'

Transactional Leadership also featured strongly

'We do site visits but we also do ad hoc site visits where they're not expecting us, obviously we want to ensure that health and safety is being adhered to. So when there's visits they know we're coming it's easier to tidy things and make things presentable so we do ad hoc site visits as well. What we have if we don't see them we expect to check in sort at least once or twice a day.' OSH Professional, contract maintenance

Strong emphasis on the interpersonal relationship between the leader and the worker

‘That’s one of the issues with all distributed workforces, that the interconnection on a personal level with a supervisor or a manager who knows you and who actually maybe has some personal connection with you, maybe you like a bit of banter about the football on a Monday morning....those things are what help people to say ‘yes production is important but actually, Bob, it’s much more important that you come back tonight. That’s what’s important to me, you’re my friend, I don’t want to see you get hurt. If you think you’re going to get hurt I want you to stop and I want you to phone me, I want you to talk to me.’ ‘

‘I think the personal connection, the actual physical connection, shaking someone’s hand, sitting next to them in a room, it starts to draw you to the recognition that if that person gets hurt, there is a personal impact on you as an individual.’

Analysis of interview data highlight challenges and facilitators to OSH leadership

‘Structural resources’ are important enablers, but in tandem with good OSH leadership

- Communications ICT, Access to information about HS working, use of technology / equipment to aid HS working, risk assessment procedures, policies and guidance, training, promotion and awareness of HS working
- Distributed Work specific and HS in general

The ‘bypass’ of leadership from OSH professional to distributed worker

- *‘all the operatives have got my number as well and if they can’t get their supervisor they know they can ring me.’*

Specific aspects of distributed working that present barriers to OSH leadership.

- Time away from main location, modes of distributed working, switching between modes. Access to support / manager / advice, problems with ICT

Health and Safety issues pertinent to distributed working

- e.g. isolation, abuse, emotional demands, physical risks

Survey development

Leadership items

We identified leadership behaviours that are effective for distributed workers and that are either:

1. found in existing leadership frameworks
2. fit within the existing frameworks but need to be adapted, or
3. are not captured by existing frameworks.

Transactional leadership could be used directly (Podsakoff et al., 1998). 5 items

Transformational leadership - emphasis on individualised consideration specific to health (Carless et al. 2008). 5 specific items developed to capture this dimension in greater detail.

Health-specific leadership (Gurt et al., 1998) – reworded (health promotion was replaced with health and safety); separate items for health and safety (7 items each)

Leader-member-exchange (LMX; Graen & Uhl-Bien, 1995): Two out of seven items in the LMX questionnaire were directly related to the existing items, however, 4 items developed to capture stronger emphasis on inter-personal relationships

Tailored items - 11 items were developed that captured the interpersonal relationship between the line manager and the employee concerning safety and health as none of the existing frameworks reflected these in sufficient detail.

Survey development

Health, Safety and Wellbeing Measures

Wellbeing	6 items negative affect (Lai, Y., Saridakis, G., & Blackburn, R. (2015), 3 items positive affect (Daniels, 2000)
Self-rating health	1 item
Physical risks	9 items (European Agency for Safety and Health at Work; 2014.)
Workplace isolation	3 items (Multi & Jaramillo, 2011)*
Knowledge sharing	3 items (Nesheim & Gresgaard, 2014)*
Job satisfaction	3 items (Cammann et al., 1979 - in Golden & Viega)*
Emotional demands	3 items (Xanthopoulou et al., 2013)
Commitment	3 items (Ilen & Meyer, 1990)
Absence/presenteeism	3 items (Rugulies et al., 2007; Johns, 2010)
Work demands	8 items (Edwards et al., 2008)
Abuse	3 items (tailored from Rogers & Kelloway, 1997)
Safety performance	3 items (Neal & Griffin, 2006)
Safety outcomes	5 items (Huang, 2013)*

* From literature review

The multi-level survey design

An overview of items in each of the 3 surveys

OSH professional (OSH)

- Self report leadership to LM and bypass to DW
- 'Structural resources'

Line Manager (LM)

- Report on OSH leadership to LM
- Wellbeing, commitment, job satisfaction
- DW safety performance
- Safety climate (group)
- 'Structural resources'

Distributed worker (DW)

- Report on LM leadership to DW and OSH bypass
- The full suite of health, safety and wellbeing measures
- Detail on DW (modes, switching)
- 'Structural resources'

The main challenge was to keep the surveys to a manageable length!

Survey test and administration is underway (Jan-May 2016)

- Draft surveys tested via cognitive pilot (23 contacts – range of distributed workers including blue and white collar).
- Survey Administered using Qualtrics (online), but paper copies where required.
- Individual email links to participants to enable matching of responses.
Export to SPSS
- Ongoing recruitment of organisations (SHP, LinkedIn, Contacts, Snowballing)
- 9 organisations about to receive links (@2,500 workers), awaiting further
12 organisations to provide details

Pathways to impact

Update: funding received from UEA HEIF fund to set up baseline measures and reporting processes

Stakeholder	Output	Impact through	Potential further impact
IOSH membership (40,000)	Research Report for IOSH / membership	<ul style="list-style-type: none"> ▪ Enhanced guidance ➤ Promotion of research: ➤ Toolkit (SHP articles / IOSH conferences / IOSH network) 	<ul style="list-style-type: none"> ▪ Incorporate into IOSH training courses ▪ Adoption by IOSH equivalent bodies (e.g. US)
Participating organisations	Benchmark reports	<ul style="list-style-type: none"> ▪ Changes to work practices 	<ul style="list-style-type: none"> ▪ Adoption by other organisations
Academics	Academic papers	<ul style="list-style-type: none"> ▪ Knowledge building 	
Organisations employing DW	Toolkit - delivery partners: Affinity Health at Work & ERM	<ul style="list-style-type: none"> ▪ Changes to work practices 	<ul style="list-style-type: none"> ▪ Adoption by multi-nationals
Policy makers	Research Report Academic Papers	<ul style="list-style-type: none"> ▪ Highlighting agenda for 'health' and wellbeing leadership of DW 	<ul style="list-style-type: none"> ▪ European agenda

Summary

- **Exploratory study to establish parameters of good OSH leadership behaviours in distributed work – line and OSH professionals**
- **Complex design: mixed methods, multi-level**
- **Build knowledge of OSH (health / wellbeing and safety) leadership, distributed workers and distributed work ('blue' and 'white' collar), Practical toolkit for OSH managers and line managers**
- **Knowledge disseminated widely**

Questions?

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Thank you!