Remote Working Stress Risk Assessment Tool Guidance

User Manual

Introduction

This document presents and explains a stress risk assessment tool for remote working. This tool was developed at the University of Hull as part of the Future Work Design project, funded by MHCLG, in collaboration with four Local Authorities (LAs), East Riding of Yorkshire Council, Hull City Council, North East Lincolnshire & North Lincolnshire. The tool was developed following a large-scale qualitative study of 32 focus groups. Participants were a diverse range of Local Authority workers, many of whom were required to work from home during the first COVID lockdown (March – July 2020).

The data from this study was analysed into themes, which are described in full in the project report (https://humanfactors.hull.ac.uk/wp-content/uploads/2020/11/UoH-Future-Work-Design-A4-WhitePaper-v5-small.pdf). From this qualitative data, a set of stress risk items were generated, which were consistent with the stress risk model of the HSE Management Standards. This set of questions was then piloted with a sample of 51 LA workers to review the items and the psychometric properties of the tool. This development work has resulted in attached tool.

> *The aim of the tool is to provide a mechanism for Local Authorities to explore and assess the stress risks associated with remote working. It can be used alongside the full report, to provide quantitative data to evidence the prevalence and patterns of stress risks in your organisation. The following document outlines the distinct sections of the Stress Risk Assessment Tool and offers guidance on collecting and managing the resulting data.*

Dr Fiona Earle, Chartered Occupational Psychologist
Dr Katie Cunnah, Psychologist and Postdoctoral Researcher
Centre for Human Factors, University of Hull

Stress Risk Assessment Tool: Questions

The tool has four sections including A) Demographics and B) the HSE Management Standards Stress Indicator Tool (SIT), which can be completed as a stand-alone instrument by all employees irrespective of their working practices. Sections C and D can be completed alongside the SIT by those who work from home as part of their working pattern.

For All Staff

Section A. Suggested demographics

The demographic questions in Section A were incorporated into the pilot study of this tool. These questions offer a useful starting point for you to develop the bespoke demographic questions which best reflect categories of staff in your organisation.

It will be helpful to consider how your organisation can meaningfully break down the information provided by your staff. For example, whether it is helpful to extract mean scores for different groups, such as levels of seniority, locations, role categories, work pattern, or individual characteristics. If exploring the patterns of stress risks within these different groups is of value, it may be worthwhile adding to the demographic questions. Your resulting risk assessment data should then be suitable to support your understanding of where interventions can be targeted. It is important when establishing staff groupings to ensure that participant anonymity is not breached. We recommend ensuring data summaries are only available for groups consisting of 10 or more respondents.

Section B. Management Standards Stress Indicator Tool

The questions in Section B are the 35 questions from the UK Health and Safety Executive's Management Standards SIT. These questions represent seven important domains of stress risk, each represented by items arranged into the following subscales – Demands, Control, Peer support, Management support, Relationships, Role, and Change. This element of the tool addresses general stress risks that are potentially present in all working environments, and is the HSE's recommended approach to assessing occupational stress risk. All staff, irrespective of role or working pattern, could be invited to complete the questions from the Management Standards Indicator Tool within your organisational survey. Brief scoring guidance is included below (see Table 1). Full guidance for using this tool and interpreting the data is available from the Health and Safety Executive website at https://www.hse.gov.uk/stress/standards/downloads.htm.

For staff who have some aspect of remote working in their working pattern

Section C. Remote working (general)
The questions in Section C address stress risks for staff who have a remote working component to their role, reflecting on their broad and general working patterns and conditions. This may include, for example, reflecting on their practices when working in an office, on-site or community work as part of a blended working mix that includes remote/home-based working.

Section D. Remote working (specific)
The questions in Section D address stress risks for staff who have a remote working component to their role, reflecting specifically on their working patterns and conditions when working remotely/from home.

Considerations for Data Collection

Administration

The tool is presented here as a ready-to-use paper survey, but you may prefer to use an online survey platform to automate the data collection and assist with analysis. To operationalise the survey on a digital platform, load all of the questions into the platform ensuring each question has the correct response category options. It is vital that you don't change or remove any items, as this will undermine the technical properties of the subscales, and it will be difficult to know if you have reliable information. It is also vital to ensure the scores aligned with each response are consistent with the guidance. Following the guidance below will support an accurate interpretation of your findings.

Ethics

Ethical collection of this type of data requires clarity for the respondents in relation to what will happen to their data, i.e. how their data will be processed and used. It is also important that survey respondents are provided with a clear commitment in relation to data storage and security, particularly who will have access to the data, right to withdraw their data and the approach to confidentiality and anonymity. It is crucial that participants know that there will be no negative consequence for them if they complete this survey, and the protection of anonymity is therefore paramount to achieving a good response rate and collecting meaningful data. Further advice on collecting psychological data ethically is provided by the British Psychological Society: https://www.bps.org.uk/sites/bps.org.uk/files/Policy/Policy%20-%20Files/BPS%20Code%20of%20Human%20Research%20Ethics.pdf

Using the Remote Working Stress Risk Assessment Tool: Scoring Key

Section A. Demographics

Frequency data should be calculated to provide insight into the characteristics of respondents. Responses to these questions can also be used to compare groups and identify any between-group differences in mean scores. This can be achieved by splitting the data according to the demographic characteristics.

Section B. Management Standards Stress Indicator Tool

Items 1-35 can be reduced to subscale means by averaging the scores for the sets of items detailed in Table 1. This data reduction process will provide seven subscale scores of stress risk. Note that items for the Demands and Relationships subscales are negatively loaded (e.g. "My workload feels more intense when working remotely"). These scores are reversed in the scoring of the tool, so that high scores for all items and subscales consistently reflect positive work characteristics and a low stress risk. Mean scores for individual items are also useful in further exploring specific areas of risk. It is important to note that subscale scores should be compared to benchmarking data, rather than other subscales. Benchmarking data are available as means and as percentile scores. Benchmarking information for this instrument is available from the following academic paper by Webster and Edwards (2012) Work & Stress, 26:2, 130-142, doi.org/10.1080/02678373.2012.688554. This document provides normative scores for public and private sector companies and supports meaningful data interpretation.

Table 1. Management Standards SIT subscale reduction

Demands (Reversed)	3, 6, 9, 12, 16, 18, 20, 22
Control	2, 10, 15, 19, 25, 30
Peer support	7, 24, 27, 31
Manager support	8, 23, 29, 33, 35
Relationships (Reversed)	5, 14, 21, 34
Role	1, 4, 11, 13, 17
Change	26, 28, 32

Section C. Remote working (general)

Items 36–40 concern stress risks for staff who have a remote working component to their role, but these initial questions refer to working conditions as a whole, not just the remote elements. High scores on these questions again suggest positive working conditions and low stress risk. These questions should be reviewed as a set of individual item means only, rather than averaged, as they do not represent a coherent subscale.

Section D. Remote working (specific)

Items 41-76 are specific remote working stress risk items that can be grouped as outlined in Table 2. The domains are in line with the seven stress risk domains of the SIT, but with the addition of two new areas of interest, *Remote Digital Enablers* and *Remote Digital Risks*. To reduce the item scores into their subscale means, averages of the seven stress risk domains can be calculated, but items representing the two new domains (*Remote Digital Enablers* and *Remote Digital Risks*) should only be viewed as sets of individual items, as they incorporate a diversity of risks, which may not be meaningfully represented by a mean score.

Table 2. Remote Working Subscale reduction

Remote Demands (Reversed)	48, 60, 66, 70
Remote Control	49, 71
Remote Peer support	41, 50, 55, 59, 65, 68, 72, 75
Remote Manager support	42, 51, 56, 61, 62, 69, 73
Remote Relationships (Reversed)	44, 52
Remote Role	43
Remote Change	45, 46, 47, 53, 74
*Remote Digital Enablers	**54, 57, 58, 63, 76**
*Remote Digital Risks (Reversed)	**64, 67**

*do not reduce items to subscale means

A Note on Health Outcomes Data

The items presented above refer specifically to stress risk. Obtaining data in this area will support your understanding of the prevalence and patterns of stress risks within your organisation. However, it is worthy of note that assessing health outcomes alongside this stress risk assessment would offer the opportunity to explore current levels of health and wellbeing. Furthermore, when collected together, stress risk data and health outcome data can be statistically analysed to examine predictive relationships between stress risks and health outcomes. This information may be particularly useful in prioritising interventions for areas where risks are most closely related to negative health outcomes.

Many brief psychometric scales are available, for example, the PHQ4 is a brief 4 item scale for mental health screening: https://www.midss. org/content/patient-health-questionnaire-4-phq-4.

Technical Information

A small pilot study of Local Authority workers (N=51) provided data to allow a preliminary analysis of the psychometric properties of the new remote working subscales. Reliability coefficients were high for all but one of the seven standard stress risk subscales (Cronbach alphas: *Demands a* = 0.75; *Peer Support* = 0.90; *Manager Support* = 0.92; *Change* = 0.88; *Control* =0.70). The subscale Relationships did not quite reach the standard accepted alpha level, but this scale had only two items, which inevitability impacted on the scale reliability scores (*a* = and 0.57). However, the items in all of these domains were judged to be sufficiently cohesive to justify obtaining a mean score. *Role* had only one specific remote working item, so does not need to be reduced. As noted above, psychometric evaluation of the two new digital domains (*Remote Digital Enablers* and *Remote Digital Risks*) did not support scale reduction due to the diversity of the items, but can be usefully viewed as sets of items that contribute to your understanding of digital stress risks in remote working.

There is currently no available benchmarking data for the remote working sections of this tool. The tool has been developed with a strong evidence base in response to rapid changes in working practices. It provides a useful mechanism for organisations to explore emerging challenges relating to remote working. Development for this instrument is ongoing and will include validation and benchmarking. Users of this tool are encouraged to share their anonymised data to support this ongoing development. If you are willing to share your data, please contact humanfactors@hull.ac.uk to discuss.

User Manual