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Returning employees back to work: developing a measure for supervisors to Support Return to Work (SSRW)

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Returning employees back to work: Developing a behaviour measure for line managers

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Running head: Line manager behaviours in return to work

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Abstract

Introduction: Evidence suggests that line manager behaviours have a strong influence on employees' health and well-being outcomes. Few have examined the specific behaviours associated with managing an employee back to work following long-term sick leave. This study describes the development of a line manager return-to-work behaviour measure using qualitative and quantitative research methods.

Methods: Qualitative data were collected between 2008-2010 from a UK population of organisational stakeholders ($N=142$), line managers ($N=20$) and employees ($N=26$). Data from these samples were used to develop a 42 item questionnaire and to validate it using a further sample of line managers ($N=186$) and employees ($N=359$).

Results: Based on a factor structure and reliability results, four scales emerged. The measure demonstrated good internal reliability, construct and concurrent validity. Longitudinal data analyses demonstrated test-retest reliability and promising predictive validity.

Conclusions: This is a potentially valuable tool in research and in organisational settings, both during long-term sick leave and after employees have returned to work.

Word count: 158

Key words: managers, supervisory, questionnaire design, employee health, sick leave; return-to-work

Introduction

It is well-documented that health problems such as depression and musculoskeletal problems are the most prevalent causes of long-term sickness absence [1,2]. With the workforce ageing, there is also an increasing prevalence of chronic health problems such as cardio-respiratory problems and cancer contributing to long-term sick leave [2, 3]. So far, much of the research and interventions around return to work management has focused on employees. Less attention has been paid to the role of line managers in the return to work process. This study describes the development and preliminary validation of a new line manager return-to work-behaviour measure.

The influence of line managers on employee health and well-being

Evidence suggests that line managers have an influence on employees' stress and health outcomes [4, 5]. They can have both a negative and positive effect on employee productivity, health and well-being [see 5 for a review]. For example, supervisor support is associated with increased productivity [6], lower sickness absence [7], a decrease in risk for future depression [8] and lower turnover intentions [9]. Conversely, poor manager-employee relationships and lack of line manager support is reported as a common source of stress and low well-being among employees [5, 10]. Negative manager behaviours have also been associated with increased long-term sick leave [11,12]. Although studies have documented the relationship between manager behaviours and the incident and length of employee sick leave, few have investigated the behaviours required to manage employees return to work. It could be argued that the same positive behaviours that are associated with employee productivity and well-being are also associated with these outcomes among those returning to work following sick leave. However, there may be other behaviours that are required by line managers to manage the additional health-related and work-related factors associated with returning to work following ill-health.

These behaviours may be more indicative for work productivity and well-being specifically for those returning to work.

Line manager behaviours in the return to work process

Much research on the influence of line manager behaviour on employees with a health problem has focused on managing employees' long-term sick leave [12, 13]. Positive manager behaviours include modifying job tasks and duties to allow an employee to return to work [14-17]. Studies have found that positive interactive communication between the line manager and the sick-listed employee facilitates an early return to work [18,19]. In contrast, unhelpful line manager behaviours in sickness absence management are reported to have a negative influence on sickness absence and work performance. For example, employees who perceive themselves under pressure from managers to attend work when unwell are more likely to report poor work performance [20]. This was also linked to higher sickness absence, poor well-being and lower manager-assessed performance. However, few studies have examined which specific line manager's behaviours influence return to work outcomes among employees, and how this subsequently affects well-being and work productivity outcomes over time.

To date, much of the research on identifying the behaviours of relevant others in the return to work process has focused on the role of occupational health professionals or return to work co-ordinators [21]. In one of the few studies to examine the behaviours of line managers in the return to work process, Aas and colleagues [22] used qualitative methods to identify the leadership qualities valued in the return to work process by employees and their line managers. The leadership qualities employees valued were: ability to make contact, being considerate, being understanding, being empathic and being appreciative. However, these leadership qualities were different to those that managers believed the employees preferred. Similarly, Wynne-Jones and colleagues [23] found divergent views between managers and employees in

their qualitative study on return to work for those with musculoskeletal pain. Nieuwenhuijsen and colleagues [19] developed a questionnaire on supervisory behaviour in the return to work process following consultation with human resource professionals and interviews with supervisors. In their measure, only three criteria were focused on: communication with employee, promoting a gradual return and consulting with professionals. Moreover, the measure was specifically designed for managing employees with depression only. It may be that a wider range of behaviours is required in managing return to work for those with other health problems. In addition, as a holistic perspective was not taken in the development of this measure (e.g. the views of employees), it is possible that there are further behaviours that are important in the successful return to work of those with depression.

To our knowledge, no measures are available that capture the line manager behaviours involved in managing employees back to work. Therefore the aims of this study were two-fold: First, to develop and validate a questionnaire that measures line manager behaviours in the return to work of employees on long-term sick leave; and following their return to work. In the UK, the most prevalent conditions for long term sickness absence (typically defined as four weeks or more continuous absence) [24] are: anxiety and depression, back pain, heart disease and cancer [1, 2]. Therefore, the line manager behaviours were identified in relation to managing people with these four conditions back into work. Second, as the relationship between line manager behaviours and employee productivity, well-being and sickness absence is well-documented [e.g. 7], this study examined the associations between line manager behaviours in the new questionnaire and employees' length of sickness absence, work productivity, job satisfaction and psychological well-being.

It was hypothesised that employees who rate their managers as exerting more positive return to work behaviours are likely to return to work earlier (hypothesis 1). It was further hypothesised

that positive line manager return to work behaviours will be associated with increased employee work productivity, job satisfaction and well-being measures following initial return to work (hypothesis 2) and these will be maintained over time (hypothesis 3).

Method

Study Design

This study took place over an 18 month period (2008-2010). Ethical approval was obtained from University's ethics committee.

Study 1: Questionnaire development

Focus groups participants

Four focus groups were conducted with 78 Occupational health (OH) professionals and 64 human resources (HR) professionals recruited from five sectors reporting the highest prevalence of sickness absence in the UK at the time of this study (HSE, 2004: Education, Healthcare, Central Government, Local Government and Finance). To ensure key sectors were represented, participants were recruited through Government regulatory bodies, such as the Health and Safety Executive (HSE) and Healthy Working Lives, through professional bodies, such as Chartered Institute of Personnel and Development (CIPD), and through special interest emails and web groups. The focus groups were conducted across the UK and attended by a mix of OH professionals and HR professionals each representing a different business organisation.

Interview participants

OH and HR representatives were asked to seek interest from managers who had managed employees' return to work; and from employees who had returned to work following a period of

sickness absence from one of the four conditions (depression and anxiety, back pain, cardiovascular heart disease and cancer). In total, 26 employees and 20 line managers took part in 40-minute telephone interviews (see Table 1).

Development of focus group and interview schedule

Focus groups: The principal questions explored were: what line manager behaviours facilitate employee return-to-work following long term sickness absence due to anxiety and depression, back pain, heart disease or cancer; and what behaviours represent as obstacles. To elicit the line manager behaviours, participants were asked to draw from their own experiences of employees who had returned to work following a period of long term sick leave. With each case they were asked to note the positive and negative behaviours the manager had demonstrated throughout the process. These behaviours were discussed within groups and common themes were extracted from case studies.

Interviews: Using information from the focus groups, two semi-structured interviews were designed, one for managers and one for employees, using the critical incident technique [25]. These were revised following four pilot interviews. The interviews aimed to elicit information regarding specific positive and negative manager behaviours relevant to supporting return to work. Employees were asked to describe the incident of their return to work following sick leave and how it had been managed by their line manager. Managers were asked to describe an incident where an employee had returned to work following sick leave due to one of the four conditions. Participants were asked to consider four separate stages of absence and return: when an employee first went on sick leave; during absence from work; actual return to work; and the current situation back at work (if applicable). Interviews were recorded and fully transcribed.

Data analysis: Focus group participants were asked to cluster or theme the behaviours discussed. The behaviours and themes were recorded. A total of 349 behaviours were identified. Interview data was analysed using content analysis [26] First, behaviours were extracted from 10 employee and 10 manager interviews and written onto cards (one card per behaviour). Two impartial observers, blind to the aims of the study [27] sorted the cards into themes. Nine themes were identified and provided the basis of the coding framework. The researchers discussed the emerging themes and compared these to the themes identified from the focus group for accordance. A further two behavioural themes were added to the framework with regard to both the employee's and manager's knowledge of the legal requirements regarding the return to work procedure. The framework was applied to the remaining interview transcripts, A total of 348 behaviours were ascertained from these transcripts.

Questionnaire development: Following data analyses, 11 themes and 75 behavioural indicators were identified. These constituted the preliminary framework for manager behaviours to support return to work (see Table 2). The behaviours were converted into a questionnaire using Facet Theory [28]. Statements need to i) cover all themes, ii) each to reflect a single theme, iii) include an active verb iv) refer to an observable or inferable behaviour. Although Facet Theory suggests that each question is phrased positively it was decided that negative manager behaviour may be more than the absence of positive manager behaviour and therefore some negatively phrased statements were included. This is consistent with good practice in psychometric scale development [29].

The initial questionnaire consisted of 75 items. Two versions of this measure were developed: one for employees and one for line managers to complete. All statements were the same for both versions of the questionnaire. The statements in the employee questionnaire were prefixed by 'My manager...' and those in the manager questionnaire were prefixed by 'I'. All scores were

rated on a five point Likert scale from 'Strongly Agree' to 'Strongly Disagree' with an additional response option of 'No opportunity to observe'.

Study 2: Questionnaire reduction, scale structure and reliability assessment

A longitudinal-survey design was employed to enable factor structure investigation and to conduct analyses for test-retest reliability with the new questionnaires. Links to the online questionnaires were distributed at two time-points to employees and line managers with a 6-month interval. On both occasions, participants were asked to complete the behaviour questionnaire and demographics.

Study 3: Testing the relationship between line manager behaviours and sickness absence, productivity and well-being: concurrent and predictive validity

Additional measures on sickness absence, work productivity, job satisfaction and well-being were collected from employees (study 2) to test the hypothesis that employees who rate their managers as exerting more positive return to work behaviours are more likely to return to work earlier (hypothesis 1). Further, positive line manager return to work behaviours will be associated with increased employee work productivity, job satisfaction and well-being measures following initial return to work (hypothesis 2) and these will be maintained over time (hypothesis 3). Testing these hypotheses also allowed for construct, concurrent and predictive validity of the measure to be assessed.

Participants (study 2 and 3)

Those who took part in the focus groups sought interest from managers and employees meeting the study criteria. Employee inclusion criteria were those employees who had recently returned (≤ 6 weeks) or were about to return to work following sickness absence due to anxiety and

depression, back pain, heart disease or cancer. This included full return to work and partial return to work (temporarily working fewer than full contract hours). Line manager inclusion criteria were managers who had recently managed (≤ 6 weeks) or were about to manage an employee returning to work following the same conditions. 264 employees and 151 line managers were recruited from these sources. An additional 95 employees and 35 managers were recruited through other networks. A total of 359 employees and 186 managers responded to the survey at Time 1 (T1). At Time (2) (six-month follow-up) a total of 115 questionnaires were received from employees and only 31 questionnaires were received from line managers.

Measures

Employee Questionnaire

Behaviour Measure for Managers to Support Return to Work. The 75 item version was used at T1 and the 42 item measure was used at T2, following factor analyses. Employees responded to questions about how their manager behaved during absence from work and subsequent return to work. Responses were made on a 5 point Likert scale from 'Strongly Agree' to 'Strongly Disagree'. Cronbach's alpha coefficients (α) for both time 1 and time 2 were .97.

Well-being (General Health Questionnaire) [30]. This scale includes 12 items that elicit respondents' feelings experienced over the last month, including 'Have you recently lost much sleep over worry?'. Likert scoring was used where each item was scored 1 (not at all) to 4 (much more than usual). The GHQ-12 has been found to be a valid and reliable measure of well-being [e.g. 31]. Negative items were reversed so high scores indicated positive well-being (Time 1 $\alpha = .87$, Time 2 $\alpha = .89$).

Job Satisfaction [32]. This single item 'How satisfied are you with your job in general?' was scored on a seven point Likert scale where 1 was 'Extremely dissatisfied' and 7 was 'Extremely satisfied'. A meta-analysis conducted by Wanous and colleagues [33] supported the use of single item job satisfaction measures, reporting high correlations with multiple item measures.

MOS Health Distress Scale [34]. This 4 item scale taken from the MOS survey of health status, assessed psychological stress. The scale includes measures on symptoms of depression, anxiety and positive affect ($\alpha = .89$). The psychometric properties of the scale, including internal consistency, content and construct validity have been proven to be good [34]. Items included 'are you discouraged by your health problems?' All items were scored on a 5 point Likert scale ranging from 'None of the time'(1) to 'All of the time' (5). A mean score was calculated for the health distress scale, with a higher score indicating greater distress about health.

The 16 item Work Limitations Questionnaire [35]. This was used to assess functional limitations at work and has good reported validity and reliability [35]. This measure is designed to assess how much impact the employee's health condition has had on their work in the past 2 weeks. The questionnaire is measured on a 5 point Likert Scale ranging from 'Difficult none of the time' (1) to 'Difficult all of the time' (5). A total score was calculated for this scale, with a higher score indicating more work limitations (Time 1 $\alpha = .87$, Time 2 $\alpha = .89$).

Self rated job performance scale [36]. This one item scale asks the employee to rate their performance at the present time. This is scored on a 7 point Likert scale ranging from 'very poorly'(1) to 'extremely well'(7).

Socio-demographic and illness specific questions: Information on age, gender, education, occupation, type of employment (part time or full time), size of the employing organisation, illness diagnosis, health status and current or recent absence were collected.

Manager questionnaire

Behaviour Measure for Managers to Support Return to Work. The 75 item version was used at T1 and the 42 item measure was used at T2, following factor analyses. Responses were made on a 5 point Likert scale from 'Strongly Agree' to 'Strongly Disagree'. Cronbach's alpha coefficients (α) for time 1 was .97.

Socio-demographic questions: Information on age, gender, education, occupation, type of employment (part time or full time), size of the employing organisation, recent experience of long-term absence management were collected.

Analyses

All analyses were carried out using SPSS version 16.0.

Study 1: Questionnaire reduction, scale structure and reliability. First, 'No opportunity to observe' responses were re-coded to 'missing data' and negatively phrased questions were reverse coded. Ten items related to the manager's behaviours while the employee was absent from the workplace ('communication and support during sick leave') were separated from the rest of the behaviours which were more concerned with when the employee had returned to the workplace. The remaining items were factor analysed using an oblique criterion and a direct oblimin rotation. Application of a scree test [37] suggested three factors should be rotated. Items loading at or above 0.4 were regarded as significant and items which loaded significantly onto more than one factor were either excluded where the difference was less than 0.2 or allowed to

remain where the difference was over 0.2, in which case they were assumed to load onto the factor with the highest loading. The analysis was re-run until the final pattern matrix satisfied these criteria.

Study 2: Hypotheses, reliability and validity testing

Test-retest reliability: Due to insufficient line manager T2 data, test-retest reliability was conducted on employee data only (n=111).

Construct validity: correlations among all study variables using employee data were conducted using persons correlation coefficients.

Stability of the Time 1 line manager scales were compared between each chronic health condition group using one-way ANOVA and Tukey post-hoc analyses.

Testing hypotheses 1 and 2; and concurrent validity: Using employee data for hypothesis 1 (employees who rate their managers as exerting more positive return to work behaviours are more likely to return to work earlier); and hypothesis 2 (positive line manager return to work behaviours will be associated with increased employee work productivity, job satisfaction and well-being measures following initial return to work), a series of separate stepwise regression analyses were carried out the overall T1 measure and with each T1 line manager behaviour scale as the independent variables; and each T1 return to work outcomes as the dependent variables: length of sickness absence, work productivity, well-being and job satisfaction. Regression analyses were conducted for the total sample and separately for the depression and anxiety group only, due to small sample sizes in the other groups.

For hypothesis 3 and predictive validity: For hypothesis 3 (employees who rate their managers as exerting more positive behaviours at T1 will have increased employee work productivity, job satisfaction and well-being scores over time (T2)), the above series of separate stepwise regression analyses were repeated with the overall T1 measure and each T1 line manager behaviour scale as the independent variables; and each T2 return to work outcomes as the dependent variables.

For each set of analyses, key demographic variables were entered as control variables in step one, the four line manager behaviour scales were entered in step two.

Results

Employee Characteristics: A total of 359 employees responded to the T1 questionnaire of which 347 were suitable for analyses. Mean age of sample was 45 years (SD= 9.70); and 52% (n=147) were female. The majority were employed within IT (34%), Telecommunication (26%), Education (10%), Retail (8%) and Healthcare (6%). Employees' average mean tenure was 17 years (SD: 11.3). A large proportion of participants (75%) worked within organisations employing ≥ 5000 employees; and 8% worked within smaller organisations (between 1-249 employees). Table 4 shows the majority of employees had returned to work following sick leave due to stress, depression and anxiety (n=207, 58.0%). This group also had the longest length of sick leave (mean 91.75 days; SD=63.33) followed by those with cancer (mean 83.25 days, SD = 94.40). A total of 115 employees responded to the Time 2 questionnaire of which 111 were usable. The sample composition was comparable to that of Time 1 (See Table 3).

Manager characteristics: A total of 186 managers responded to the questionnaire of which 177 questionnaires were usable. Mean sample age was 45 years (SD= 7.8); and 55% (n=57) were female (n=57). The sample reflected a number of sectors; Telecommunication (20%), IT

industries (15%), Healthcare (14%), Retail (11%) and Central Government (11%). Managers' mean tenure was 18 years (SD= 10.2). 48% of the managers worked within organisations employing ≥ 5000 employees and 11% worked in smaller organisations of between 1-249 employees. Only 31 managers answered the questionnaire at Time 2, despite three attempts to follow-up and offer incentives. Due to the low response rate, only Time 1 data were analysed.

Study 1: Questionnaire reduction, scale structure and reliability

Reliability results on the T1 data revealed 13 items did not meet the criteria for reliability and were therefore removed. This resulted in 62 items that were factor analysed.

Factor analysis of the employee questionnaire revealed a stable three-factor model. Twenty items were deleted for cross loading on at least two factors. Together, the factors explained 70% of the variance in the 42 items retained (Table 4). Factor 1 contained 7 items ($\alpha = .91$) explaining 4% of the variance; factor 2 had 5 items ($\alpha = .89$) explaining 6% of the variance; and factor 3 had 20 items ($\alpha = .98$) explaining 60% of the variance. The final subscale, excluded from the factor analyses, 'communication and support during sick leave' consisted of 10 items ($\alpha = .98$). All alpha coefficients ranged above the minimum of 0.70 [38] A factor analysis was conducted on the manager data to see if any different factors emerged which were not present in the employee data. From this analysis no other significant factors emerged.

The items in the four sub-scales were reviewed by the project steering group. The subscales were defined as: communication and support during sick leave (CSDSL, 10 items), inclusive behaviour upon initial return (IBUIR; 7 items), negative behaviours (NB; 5 items) and general proactive support following return to work (GPSR; 20 items). The GPSR sub-scale was further

grouped into three sub-clusters defined as managing the team (5 items), open and sensitive approach (12 items) and legal and procedural knowledge (3 items) (see Table 4).

Study 2: Hypotheses, reliability and validity testing

Table 5 shows the descriptive statistics for all measures at T1.

Test-retest reliability for the three sub-scales and the overall measure demonstrated coefficients ranging from 0.89 to 0.98 (Table 5).

One-way ANOVAs for each scale showed significant differences between the four condition groups on rating their line manager. Post hoc analyses showed that those with back pain and those with stress, depression and anxiety significantly rated their line manager lower on 'communication and support during sick leave' [$F=(3,316)13.94, p<.0001$; post hoc analyses all $p<.0001$], and significantly higher on 'negative behaviours' [$F=(3,316)8.06, p<.0001$; post hoc analyses all $p<.01$] compared to the other two groups. Those with depression and anxiety also rated their manager significantly lower on 'general proactive support following return to work' compared to those with cancer and heart disease [$F=(3,316)10.41, p<.0001$; post hoc analyses all $p<.01$], but not with the back pain group. The heart disease group rated their manager significantly higher on 'inclusive behaviour upon initial return' compared with the other three groups [$F=(3,316)4.92, p<.002$; post hoc analyses all $p<.01$].

Construct validity: Correlations among all study variables are listed in Table 5. The overall line manager RTW behaviour scale demonstrated good construct validity, correlating positively with sick leave, ($r = -.17, p=.01$), well-being ($r = .22, p<.01$), work limitations ($r = .28, p<.01$), job performance ($r = .17, p<.01$), and job satisfaction ($r = .35, p<.01$).

Hypotheses 1 and 2 and concurrent validity: for hypothesis 1, stepwise regression analyses showed that after controlling for confounders, only the subscale 'inclusive behaviour upon initial return' was significantly associated with return to work, and this was a negative association (i.e. longer sickness absence) ($\beta^2 = -.27$, $p = .01$). This suggests that line managers were more likely to show inclusive behaviours upon initial return of those employees who had taken a longer time off on sick leave. Separate analyses for the stress, depression and anxiety group showed that those who rated their managers highly on the subscale 'communication and support during sick leave', reported shorter sickness absence (i.e. early return to work) ($\beta^2 = .23$, $p = .001$). There were no other significant findings with the remaining subscales.

For hypotheses 2, the overall measure was associated with lower perceived work limitations ($\beta^2 = .28$, $p = .0001$), greater job performance ($\beta^2 = .17$, $p = .001$), greater psychological well-being ($\beta^2 = .28$, $p = .0001$), lower psychological distress ($\beta^2 = .18$, $p = .001$), and greater job satisfaction ($\beta^2 = .35$, $p = .0001$) (the scale 'negative behaviours' was reversed scored for inclusion in the analyses for the overall measure). No other significant results were found. Subscale analyses showed that the subscale 'support and communication during sick leave' was significantly associated with increased job performance ($\beta^2 = .19$, $p = .001$) and psychological well-being ($\beta^2 = .17$, $p = .001$). The subscale 'negative behaviours' was significantly associated with increased work limitations ($\beta^2 = .34$, $p = .0001$), lower well-being ($\beta^2 = -.17$, $p = .01$) and greater psychological distress ($\beta^2 = .23$, $p = .0001$). Finally, the subscale 'general proactive support following return to work' was associated with greater job satisfaction ($\beta^2 = .35$, $p = .0001$). Separate analyses for stress, depression and anxiety group showed that those who rated their managers highly on subscale 'support and communication during sick leave', reported higher job performance ($\beta^2 = .16$, $p = .05$), and well-being ($\beta^2 = .31$, $p = .0001$), and lower psychological distress ($\beta^2 = -.44$, $p = .0001$). Those who rated their managers as demonstrating higher levels of 'negative behaviours' reported higher work limitations ($\beta^2 = .29$, $p = .001$). Finally, those who rated

their managers highly on subscale 'General proactive support following return to work', reported greater job satisfaction ($\beta^2=.41$, $p=.0001$).

Hypotheses 3 and predictive validity: Stepwise regression analyses showed that after controlling for confounders, the overall return to work measure (T1) predicted reduced work limitations ($\beta^2 = -.26$, $p=.01$); higher job satisfaction ($\beta^2 = .38$, $p=.0001$); and well-being ($\beta^2 = .23$, $p=.01$) at Time 2 (6 months follow-up). The subscale 'inclusive behaviours upon initial return to work' predicted lower work limitations ($\beta^2 = -.31$, $p=.001$) at Time 2. The subscale 'negative behaviours' (T1) predicted lower job satisfaction ($\beta^2 = -.37$, $p=.0001$); lower psychological well-being ($B=-.28$, $p=.001$) and higher psychological distress ($\beta^2 = .23$, $p=.01$) at T2. No other significant results were found. There were no significant findings between the subscale and the psychosocial measures at T2, for the stress, depression and anxiety group. This is attributed to the small sample size at T2 ($n=67$).

Discussion

The aims of this study were to develop and explore the preliminary psychometric qualities of a line manager return-to-work behaviour measure; and to explore the associations between line manager behaviours in the new questionnaire and a number of relevant employee variables. A four scale measure emerged with good internal consistency, test-retest reliability, construct validity. A key strength of this measure is that it contains both negative and positive line manager behaviours and was developed using two main population groups: employees and line managers.

Concurrent validity

The measure was found to have good concurrent validity with work performance, as measured by work limitations and job performance, and with well-being, as measured by a general well-being measure, psychological distress and job satisfaction [39]. Individual scales also demonstrated good concurrent validity, with 'support and communication during sick leave' scale associated with job performance and psychological well-being; and 'general proactive support following RTW' associated with job satisfaction. Conversely, negative behaviours were associated with more work limitations, lower well-being and higher psychological distress. However, except for 'inclusive behaviour upon initial return to work', neither the overall measure nor the 'support and communication during sick leave' scale was associated with length of sick leave. This suggests that the behaviours measured did not contribute to reducing length of sick leave among employees. As return-to-work is influenced by a number of factors, it is possible that these factors may make a more significant contribution to return-to-work decisions and outcomes than line manager behaviours. For example, we did not measure individual factors that influence return to work such as health beliefs [40], clinical factors such as advice from healthcare professionals [40] and contextual factors such as family role [41]. The contribution of these factors to return to work in conjunction with line manager behaviours needs to be further explored.

Although the scale, 'inclusive behaviours upon initial return to work' was associated with length of sick leave, this was a positive relationship. This suggests that line managers were more likely to adopt inclusive behaviours with those employees who had been on sick leave for a longer period of time. By adopting such behaviours, this would enable the employee to adjust back to work with as much ease as possible. This premise is supported by the findings from the interviews with line managers and employees.

Predictive validity

The overall measure was found to predict work performance and well-being after six months. Again, this was found to be stable after controlling for relevant variables. This indicates that the behaviours were well-identified and sampled and represented behaviours that are important for employees returning to work following long term sick leave. Only one individual scale demonstrated good predictive validity: 'inclusive behaviours upon initial return-to-work' predicted lower work limitations six months later. The predictive value of the scale indicates the importance of positive line manager behaviours at the initial return to work period. For example introducing work adjustments early and giving clarity on work roles and responsibilities minimises the impact the health condition has on work tasks after six months. However, in this study, we did not ask employees how many of their initial work adjustments and/or changes to their job role were still in place six months later. This could further contribute to the findings. Therefore, future studies should assess which work adjustments and other changes are still in place (or when they came to an end). The scale 'negative behaviours' also demonstrated good predictive validity with all three measures of affective well-being. The relationship between negative behaviours and each of these measures were negative and shows that this scale was conceptually and empirically distinct from the other scales in that negative line manager behaviours following return to work can influence poor well-being among employees.

Validity for specific health problems

A key aim of this study was to develop and test a measure that could be used to examine line manager return-to-work behaviours with a range of different chronic health conditions. Our analyses showed that those with depression and anxiety and back pain rated their line manager behaviours significantly lower on 'communication and support during sick leave' and significantly higher on 'negative behaviours' compared to the other two groups. Those with depression and anxiety also rated their line managers lower on 'general proactive support following return to work' compared to those with cancer and heart disease. These results suggest that where work

may be a contributing factor to health condition, the quality of relationship between the line manager and the employee may be tenuous or constrained. The line manager him/herself may also be a contributing factor to the onset of sick leave. Our results are therefore in line with previous studies [11, 12]. Unfortunately, due to the small sample size in three of the groups (back pain, cancer and heart disease), it was not possible to assess for concurrent and predictive validity. For the stress, depression and anxiety group, the scale 'communication and support during sick leave' showed good concurrent validity with a reduced length of sickness absence, improved job performance and well-being and lower psychological distress. 'General proactive behaviour' also showed good concurrent validity with job satisfaction and 'negative behaviours' had concurrent validity with higher work limitations. Unfortunately, it was not possible to examine predictive validity with this group due to the small sample size (n=67) at time 2.

Limitations

There are a number of limitations to this study. First, while our overall sample size was adequate for the number of items included in our factor analyses and for reliability and validity analyses, the majority of the sample was made up of those with stress, depression and anxiety. Therefore, there is a possibility that the measure may be more relevant to those with mental health complaints rather than a physical health condition. Further research is required with this measure on a larger sample size for those in the other condition groups. Another limitation is that we used self-report for length of sickness absence. It was not possible to collect organisational data on sickness absence as the data collected for this study coincided with the swine epidemic flu and the economic crash. This meant that OH and HR professionals were unable to dedicate resources to collect this data. This also affected the sample size in both employer and line manager data collection. However, as the majority of participants had only just returned to work following sick leave, inaccurate recall of length of sick leave would be have

been minimal. Although this study provides promising evidence that the line manager return-to-work behaviour is a valid and reliable measure, further reliability and validity testing is necessary. In particular, exploring the convergent and divergent validity of the scale, therefore comparing the scale to well-established leadership scales such as the Multifactor Leadership Questionnaire (MLQ). However, as this measure is specific to the management of return to work and ill-health, it may be more appropriate to compare it to Nieuwenhuijsen et al's [19] questionnaire on supervisory behaviour in the return to work process. A confirmatory factor analysis is also necessary in order to demonstrate that the items in the measure do focus upon separate constructs.

Conclusion

This research uses a behavioural-based approach to identify the behaviours required by line managers to support the return to work of an employee following long term sickness absence. The measure developed has demonstrated good reliability and concurrent and predictive validity. It can be used by researchers and by organisations as a guide to inform how they interact with returning employees. Furthermore, the measure can be used to identify line managers' strengths and development needs, thereby pointing to further training needs or areas where they may require support when working with the employee to secure a successful return to work. Human Resource and Occupational Health professionals can also use the measure to guide managers and give them support when managing returning employees.

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Table 1: Focus group and interview participant details

	Employees (n=26)		Line managers (n=20)	
	N	(%)	N	(%)
Male	11	(42.3)	9	(45.0)
Sector				
Health	5	(19.2)	4	(20.0)
Local Government	2	(7.7)	2	(10.0)
Education	5	(19.2)	3	(15.0)
Charity	1	(3.8)	1	(5.0)
Retail	2	(7.7)	1	(5.0)
Manufacturing & production	5	(19.2)	3	(15.0)
Finance	1	(3.8)	1	(5.0)
Transport	3	(11.6)	1	(5.0)
Other	2	(7.7)	4	(20.0)
Health Condition*				
Stress, depression & anxiety	7	(26.9)	7	(26.9)
Cancer	11	(42.3)	6	(30.0)
Back pain	3	(11.5)	4	(20.0)
Heart disease	5	(19.2)	3	(15.0)

*Health conditions reported for line managers reflect the number of employees with these conditions that managers have managed their return to work

Table 2: Final themes from focus group and interview data

Theme	Number of questions
Communication while on sick leave	11
Reassurance and managing pressure	8
Managing external links	6
Managing the team	6
Managing organisational pressures	4
Managing the initial return	5
Active monitoring	6
Making flexible arrangements	6
Understanding the condition	11
Adapting management style to the employee	5
Approachability	6

Table 3: Employee demographic data at time 1 (n= 347) and time 2 (n=111)

Respondents	Age		Gender (female)		Sickness absence (days)			
	N	(%)	Mean	(SD)	N	(%)	Mean	(SD)
All employees (Time 1)	347	(100)						
Depression & anxiety	207	(58.0)	44.46	(9.47)	98	(53)	91.75	(63.33)
Back pain	56		41.74	(9.24)	23	(52)	61.20	(68.59)
Cancer	46		46.93	(8.82)	25	(69)	83.25	(94.40)
Heart disease	30		54.38	(5.64)	3	(13)	60.00	(30.16)
All employees (Time 2)	111	(100)						
Depression & anxiety	67		46.13	(9.60)	39	(58)	98.22	(74.90)
Back pain	14		48.88	(6.64)	9	(64)	64.80	(69.25)
Cancer	17		46.53	(10.33)	10	(53)	90.14	(99.77)
Heart disease	13		54.00	(6.46)	2	(15)	54.28	(31.41)

Table 4: Factor structure of the line manager behaviour measure using principal component analyses and direct oblimin rotation

		Factor 1	Factor 2	Factor 3
Inclusive behaviour upon initial return	Gives me lighter duties/ different jobs during my initial return to work	.838		
	Incorporated a phased return to work for me	.794		
	Remained objective when discussing return to work adaptations	.638		
	Explained the return to work process/procedures to me before I returned	.598		
	Explained any changes to my role, responsibilities and work practices	.598		
	Met me on my first day back	.616		
	Made my first weeks back at work as low stress as possible	.580		
Negative behaviours	Lost patience with me when things became difficult		.810	
	Displayed aggressive actions		.777	
	Questioned my every move		.739	
	Went against my request for certain adjustments to be made to my work		.642	
	Made me feel like a nuisance for adding extra work to their schedule		.639	
General Behaviour	Asks my permission to keep the team informed on my illness			.876
	Made me feel like I had been missed by the organisation			.656
	Encouraged colleagues to help me during my rehabilitation			.717
	Promoted a positive team spirit toward me when I returned to work			.611
	Regularly communicated with HR/OH and kept me informed			.689
	Was proactive in arranging regular meetings with me to discuss my condition and how it impacted on my work			.547
	Conducted themselves openly			.711
	Listened to my concerns during my rehabilitation and took them on board			.585
	Understands that, despite looking fine, I was unwell			.519
	Appreciated my wishes during my rehabilitation			.589
	Has an open door policy so I could always approach them with any concerns			.549
	Adapted their approach to be more sensitive when addressing me			.515
	Allows me to maintain a certain level of normality			.513
	Is quick to respond by email or telephone when I had concern			.759
	Took responsibility for my rehabilitation			.516
	Acknowledged the impact my illness has on my work			.480
	Remains positive with me throughout my illness/condition			.508
Showed they were aware of the relevant legal responsibilities related to my illness/condition			.870	
Understood, by law, the need to make reasonable adjustments to my work			.607	
Followed the correct organisational procedures			.800	

Table 5: Means, standard deviations, reliability and inter-correlations between variables (n = 111)

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11
Mean	3.43	3.00	3.42	4.09	3.17	104.1	2.45	3.35		4.65	3.92
SD	0.95	1.02	1.09	1.88	1.13	75.5	0.45	1.45		1.61	1.89
α											
Correlations											
1. Overall Line manager scale	-										
2. CSDSL	.88**	-									
3. IBUIR	.85**	.73**	-								
4. NB	.76**	.70**	.61**	-							
5. GPSR	.97**	.86**	.80**	-.73**	-						
6. Length of sick leave	-.17**	-.07	-.12**	.13**	-.12**	-					
7. Well-being	.22**	.30**	.13*	-.17**	.23**	.11	-				
8. Psychological distress	-.09	-.23**	-.01	.14**	.11	.23**	-.58**	-			
9. Work limitations	-.28**	-.28**	-.15*	.34**	-.26**	.08	-.54**	.47**	-		
10. job performance	.17**	.19**	.03	.03	.12*	-.09	.38**	-.24**	-.51**	-	
11. Job satisfaction	.35**	.36**	.22**	.17**	.35**	-.10	.41**	-.23**	-.37**	.38**	-
Test Re-test Reliability	.84**	.87**	.76**	.61**	.80**						

* p =.05; ** p =.01 (one-tailed)

CSDSL: Communication and support during sick leave

IBUIR: Inclusive behaviour upon initial return

NB: Negative behaviours

GPSR: General proactive support following return to work

Table 6: Regression analyses for significant baseline line manager return- to- work behaviour predictors of outcome measures at Time1 and Time 2 for all employees

	R2 change	F value	β
Hypotheses 1 and 2:			
<i>Length of sick leave</i>			
Inclusive behaviour upon initial return to work	.02	6.53	.27*
<i>Work limitations</i>			
Overall measure	.07	15.78	-.28***
Negative behaviours	.11	21.70	-.34***
<i>Job performance</i>			
Overall measure	.03	8.13	.17**
Support and communication during sick leave	.04	10.62	.19**
<i>Psychological well-being</i>			
Overall measure	.08	13.07	.28***
Support and communication during sick leave	.01	11.80	.17*
Negative behaviours	.01	11.80	-.17*
<i>Psychological distress</i>			
Overall measure	.03	7.41	-.18**
Negative behaviours	.05	10.32	.23***

<i>Job satisfaction</i>			
Overall measure	.12	16.88	.35***
General Proactive support following RTW	.12	16.94	.35***
Hypotheses 3:			
<i>Work limitations</i>			
Overall measure	.06	4.97	-.26*
Inclusive behaviours upon initial return to work	.09	6.60	-.31**
<i>Psychological well-being</i>			
Overall measure	.05	11.87	.23
Negative behaviours	.07	13.86	-.28**
<i>Psychological distress</i>			
Negative behaviours	.05	8.27	.23*
<i>Job satisfaction</i>			
Overall measure	.14	15.91	.38***
Negative behaviours	.14	15.63	-.37***

* $p=.01$, ** $p=.001$, *** $p=.0001$. Stepwise regression analyses controlling for age, gender, tenure, income and education

Appendix 1: Behaviour Measure for Supervisors to Support Return to Work (SSRW)

(Employee version)

Scale		Item
		‘During my absence my supervisor.....’
Communication and support during sick leave		1 Regularly communicated with me via telephone or email 2 Regularly communicated work issues with me to keep me in the loop 3 Focussed conversations more on my wellbeing 4 Was in touch with my close colleagues with regards to my health 5 Encouraged work colleagues and other members of the organisation to keep in touch with me 6 Relayed positive messages through family or friends 7 Made it clear that I should not rush back to work 8 Made it clear that the company would support me during my absence 9 Reassured me that my job would be there for me when I returned 10 Prevented me from pushing myself too much to return to work
		‘My supervisor.....’
Inclusive behaviour upon initial return to work		11 Gave me lighter duties/ different jobs during my initial return to work 12 Incorporated a phased return to work for me 13 Remained objective when discussing return to work adaptations for me 14 Explained the return to work process/procedures to me before I returned 15 Explained any changes to my role, responsibilities and work practices 16 Met me on my first day back 17 Made my first weeks back at work as low stress as possible
Negative behaviours		18 Lost patience with me when things became difficult 19 Displayed aggressive actions 20 Questioned my every move 21 Went against my requests for certain adjustments to be made to my work 22 Made me feel like a nuisance for adding extra work to their schedule
General proactive support	Managing the team	23 Asked my permission to keep the team informed on my condition 24 Made me feel like I had been missed by the organisation 25 Encouraged colleagues to help in my rehabilitation process 26 Promoted a positive team spirit 27 Regularly communicated with HR/OH and kept me informed
	Open and sensitive approach	28 Was proactive in arranging regular meetings to discuss my condition and the possible impact on my work 29 Communicated openly 30 Listened to my concerns 31 Understood that despite looking fine, I was still ill 32 Appreciated my wishes 33 Had an open door policy so I could always approach them with any concerns 34 Adapted their approach to be more sensitive towards me 35 Allowed me to maintain a certain level of normality 36 Was quick to respond to me via email or telephone when I had a concern 37 Took responsibility for my rehabilitation 38 Acknowledged the impact my illness had on me 39 Remained positive with me throughout my rehabilitation
	Legal and procedural knowledge	40 Showed awareness of their relevant legal responsibilities 41 Understood the need to make reasonable adjustments by law 42 Followed the correct organisational procedures

NB Responses are measured on a 5 point Likert scale from ‘Strongly Agree’ to ‘Strongly Disagree’