

EVALUATION OF A PILOT FIT FOR WORK SERVICE

Dr Julia Smedley

**Lead Consultant Occupational Health,
University Hospital Southampton NHS Foundation Trust
and**

**Honorary Senior Lecturer,
University of Southampton**

Dr Clare Harris

**Research Fellow,
MRC Lifecourse Epidemiology Unit,
University of Southampton**

Professor David Coggon

**Professor of Occupational and Environmental Medicine,
MRC Lifecourse Epidemiology Unit,
University of Southampton**

Final Report for BOHRF Executive: Evaluation of a model fit for work service

Background

Long-term sickness absence is associated with both high costs for employers [1,2] and adverse impacts on workers and their families [3-7]. The importance for employee well-being of earlier return from sickness absence and the opportunity to achieve proactive rehabilitation through workplace intervention was emphasised in Dame Carol Black's 2008 report [8], and separately in a review of the health and wellbeing of NHS staff in 2009 [9]. In addition, the current global recession has increased the onus on NHS employers to manage the costs of sickness absence. Against this background, University Hospital Southampton NHS Foundation Trust funded the introduction of an intervention, Return2Health (R2H), which aimed to minimise both the costs of long-term sickness absence and its adverse impact on health and well-being. R2H comprised an intensive goal-orientated case management programme with access to psychological and physical therapies.

At the time R2H was planned and funded, it was unclear whether intensive case management was more effective than standard occupational health care in reducing sickness absence in the healthcare sector. Two earlier pilot vocational rehabilitation projects in the UK [10-11] had demonstrated high client satisfaction and improvements in individual health measures. They had a similar case management approach, although they did not include access to physical or psychological therapies. However, neither had made comparisons with a control group, and published controlled evaluations of the impact and cost-effectiveness of such interventions were rare. Therefore, BOHRF funded a robust evaluation of R2H, with collection of information also at a control hospital trust.

Methods

Occupational Health service at baseline

Before the introduction of R2H, the existing occupational health service included return to work assessments by occupational health nurses or doctors. The clinicians had access to a counselling service and fast-track treatment physiotherapy services. They typically articulated advice about fitness for work and adjustments to work in a written report to the line manager following each consultation. Brief and relatively infrequent follow-ups were for the purpose of updating the manager about fitness for work, and did not involve active goal-setting. Phased rehabilitation plans were usually included in a letter to the manager

The intervention

R2H was implemented under the direction of a steering group that included clinical experts, stakeholders and partners in the local health economy. Key components were:

- Referral of sickness absence cases at 4 weeks
- Intensive case management
- Co-ordination of multidisciplinary treatment, advice and support, including on-line cognitive behavioural therapy (CBT), exercise and activity management, and physiotherapy
- Closer liaison with Human Resources (HR) and line managers

The service was radically different from the previous OH service, The fundamental change was a highly active integrated case management approach that enabled employees to identify their own return to work barriers and access specific treatment, with intensive support for personal goal-setting. Thus employees were empowered to achieve earlier rehabilitation. A key aspect was the early recognition of psychological distress, and use of talking therapy techniques including CBT and motivational interviewing (MI). The interaction with line managers was also intensive and enabling, with practical input into planning adjustments to work. Regular caseload reviews with Divisional HR teams ensured active resolution of HR problems that threatened return to work. Clients were screened for psychological distress at the initial appointment using questionnaire tools (including Hospital Anxiety and Depression Score). The case manager discussed the various options for psychological support with the individual and facilitated their involvement in an appropriate choice to meet their needs.

Managers were instructed to refer all employees who were off on sickness absence for longer than 4 weeks to R2H. The regular caseload reviews with Divisional management teams and Human Resources ensured that all cases of 4 week absence were identified and the line manager was engaged in dialogue about supporting a return to work. The service was launched at our trust-wide core management briefing and information about the approach and the process for accessing the service was cascaded through this route. The Divisional Human resources advisers ensured the engagement of managers by setting targets for referring all 4 week absence to R2H.

The evaluation

In order to assess the impact of R2H we compared changes in outcome (the primary outcome being the proportion of 4 week absences extending beyond 8 weeks) from the year before R2H was introduced (2008) to the year after R2H was fully implemented (2010) at Southampton and at a nearby control hospital. The control hospital had a similar style of occupational health service to Southampton in 2008 but did not implement any major service change during the study period

The main source of data on outcomes was the Electronic Staff Record (ESR), a computerised database, which includes information about sickness absence, and which is widely used in the National Health Service. At each trust, data collection spanned the year prior to R2H (2008), the year during which it was developed (2009), and the year after full implementation (2010). We received downloads of anonymised information from the ESR at each trust, including numbers of employees, and for each period of absence beginning in a year of study and lasting for longer than four weeks (4-week absences), the start and finish dates, and the medical reason for absence. At the intervention trust, we also used a coded employee number to link spells of absence with occupational health records and check whether the employee was referred to the R2H service. Use of agency staff and numbers of terminations of employment on health grounds were collected from other databases.

Statistical analysis was carried out using Excel spreadsheets and Stata version 11.1. We calculated the following primary outcomes that were defined before the study commenced

- rates of new 4-week absences for each trust, by calendar year,
- the proportion of 4-week absences at the intervention trust, which were referred to the R2H service (using all 4 week absences captured by ESR as a denominator)
- the proportion of 4-week absences at each trust which continued beyond 8 weeks (using all 4 week absences captured by ESR as a denominator), the changes in this

measure from the baseline year (2008) to each of the subsequent years, and the differences in the changes over time between the intervention and control trusts.

- 95% confidence intervals (95% CIs) for the changes and differences in changes.

We also calculated, as secondary measures

- the mean number of days lost beyond four weeks at each trust for all 4-week absences, the changes in this measure from 2008 and the difference in these changes between the intervention and control trusts
- changes in use of agency staff and numbers of ill-health retirements at the two trusts. We included IHR as a check that any reduction in sickness absence was not accompanied by (and possibly a consequence of) increased IHR. The study was not powered to look at IHR as an outcome, and it could also be influenced by other factors, so we did not treat this as an outcome measure.

Summary of main results

Table 1 shows the numbers of staff employed at each trust, the rates of 4-week absence and the completeness of referral of 4-week absences to R2H at Southampton. The control trust was smaller than Southampton, with about half as many employees. However, the rates of 4-week absence per 1000 employees were broadly similar. In Southampton, the proportion of 4-week absences referred to the R2H service increased from 34.7% in 2009 to 45.2% in 2010.

Table 2 shows changes in 4-week absences at the two trusts from 2008-2010. At Southampton, the proportion of 4-week absences that continued beyond 8 weeks fell from 51.7% in 2008 to 49.1% in 2009 and 45.9% in 2010, a reduction in 2010 of 5.8%. In contrast, the corresponding proportion at the control trust increased between 2008 and 2010 by 4.9% – from 51.2% to 56.1%. Thus, the reduction in the proportion at the intervention trust as compared with the control trust was statistically significant (a difference of 10.7%, 95%CI (1.0% to 19.6%).

At both trusts, the number of days lost beyond four weeks, when averaged across all 4-week absences, was lower in 2010 than 2008. However, as shown in Table 2, the reduction at the intervention trust was somewhat greater than at the control trust – a mean difference of 1.6 days per absence.

During the period of the study, the total spend on agency staff in Southampton fell by 27%, whilst at the control it fell then rose to a level that was 1% higher than baseline (2008). Ill health retirements reduced in both trusts between 2008 and 2010, but there was a 26% greater reduction in Southampton than in the control Trust.

The initial costs of setting up R2H, including both staffing and non-staff (primarily equipment and training) costs, over years one and two were £174,000 and £86,000 respectively. The recurring costs of maintaining the service are £57,000 per annum. Of course, there are also hidden costs, including extra time taken by managers in Divisional meetings. An assessment of cost-effectiveness was based on the cost avoidance from earlier return to work after 4 weeks of absence. Preventing 10.7% of 4 week absences progressing to 8 weeks equated to an average saving of 1.6 days per 4-week absence (Table 2). Based on a background rate of approximately 700 4-week absences per year in Southampton, this equates to a saving of 1120 person-days of absence at an ongoing cost of £51 per absence day saved. The range of costs for agency nurses in the NHS is currently £17-£37 per hour.

Conclusions

Return2Health has been successfully implemented in University Hospital Southampton NHS Foundation Trust over the planned time frame of 2 years. The rate of referral of 4-week absences has been less than optimal, with approximately 45% of the target episodes reaching R2H within 6 weeks of absence. Therefore, because the analysis was based on all 4-week episodes, we will have tended to underestimate the potential impact of the intervention. We did not investigate the causes for non-referral other than through inviting feedback after the managers' briefing sessions. The main reasons were that managers were busy with competing priorities, and that they did not always have time to follow up cases of absence. If the study were to be repeated we would explore other inducements and enforcements to increase referral rate. These might include offering a performance reward for high referral rates or low sickness absence rates or having R2H referral rates as a specific target in managers' objectives.

Despite the sub-optimal referral rate, we have shown a reduction in the key outcome (the proportion of 4-week absences that continued beyond 8 weeks in duration) at the intervention hospital, with a statistically significant 10.7% difference in the reduction by the end of the study as compared with the control trust.

The savings that could be achieved from avoidance of agency cover for reduced absence days easily outweigh the investment in R2H (£51 cost to save 1 day of absence versus

£136-£296 nursing agency fees to cover an eight hour shift). Moreover, estimated financial savings derived from the documented reduction of 26% in agency spend in Southampton were approximately £3.5 million. Even with hidden costs of £67,000 (£60 per day of absence saved), the total cost of saving 1 day of absence would be only £110. Therefore R2H is likely to be cost-effective.

This project points to the positive effectiveness and cost-effectiveness of an intensive case management approach delivered from within the Occupational Health service of a large NHS employer. We would recommend future research to check that these findings can be replicated, and to explore in more detail the application of R2H in a variety of settings.

The main lesson for future studies from this study is that useful assessment of interventions to reduce sickness absence is possible, despite the ethical and practical constraints that must be overcome. For example, in the case of R2H, a randomised controlled trial would not have been acceptable to the employer, and would have been difficult to implement because of possible “contamination” (i.e. some elements of the intervention being applied also to controls). It also highlights the importance in such interventions of engaging line managers to maximise referral to the service.

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Dissemination

- Winner of the Healthcare People Management Association (HPMA) 2011 award for excellence in improving employee well-being (sponsored by NHS Plus)
- Summary of project and findings on HPMA website, and hot-linked from NHS Plus website 2011
- Personal presentation to Dame Carol Black by invitation, inclusion as a case study in the Sickness Absence Review.
- Oral presentation at EPICOH Oxford September 2011
- Presentation at HPMA South West Regional meeting 20th October 2011
- Meet the winner event at NHS Employers Liverpool 16th November 2011
- Paper in preparation for submission to Occupational and Environmental Medicine

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**Julia Smedley
Clare Harris
David Coggon**

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Table 1 **Employed populations, frequency of four-week absences and prevalence of referral to Return2Health by hospital trust and year.**

	Control			Southampton		
	2008	2009	2010	2008	2009	2010
Employed population	4097	4123	4117	8218	8658	9047
Number (rate per 1000 employed) of 4-week absences	338 (82.5 per 1000)	298 (72.3 per 1000)	321 (78.0 per 1000)	675 (82.1 per 1000)	703 (81.2 per 1000)	706 (78.0 per 1000)
Number (%) of 4-week absences referred to R2H by 6 weeks of going absent					244 (34.7%)	316 (44.8%)