

## Research Note: Engaging Leadership and Organisational Performance: Correlational and Cause-Effect Relationships

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1. Engagement at work has been defined by Kahn (1990)<sup>1</sup> as the  
  
“harnessing of organizational members’ selves to their work role. In engagement, people employ and express themselves physically, cognitively, and emotionally during their role performance”,  
  
while Robinson et al. (2004)<sup>2</sup> defined employee engagement as  
  
“a positive attitude held by the employee towards the organisation and its values. An engaged employee is aware of business context, and works with colleagues to improve performance within the job for the benefit of the organisation.”
2. Engaging leadership is defined as  
  
“leadership that has a powerful effect on the motivation, self-confidence, self-efficacy, or performance, of staff”.<sup>3</sup>
3. Assessing engaging leadership  
  
In the study reported here, leadership was assessed using the ‘Leadership Culture & Change Inventory (LCCI)’, which is based on items derived from the ‘Transformational Leadership Questionnaire (TLQ)’. The TLQ can be seen to assess engaging leadership since it is based on constructs elicited from an inclusive sample<sup>4</sup> of NHS and local government managers and professionals in relation to the leadership behaviour of a current or previous line manager that

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<sup>1</sup> Kahn, W. A. (1990). Psychological conditions of personal engagement and disengagement. *Academy of Management Journal*, **33**:4, 692-724.

<sup>2</sup> Robinson, D., Perryman, S. & Hayday, S. (2004). *The Drivers of Employee Engagement*. London: IES Report 408.

<sup>3</sup> Alimo-Metcalfe et al. (2009). The impact of leadership quality and contextual factors on organisational performance: Evidence of a cause-effect relationship. (Submitted for publication).

<sup>4</sup> The sample of  $n=210$  was inclusive with reference to age, ethnicity, gender & level in the organisation.

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“had a particularly powerful effect on their motivation, self-confidence, self-efficacy, or performance”.<sup>5 6</sup>

The methodology used to develop the TLQ, and from that the LCCI, adopted a Grounded Theory approach, relevant to ensuring its content and construct validity.

### 4. Cause-effect relationships

Normally, the language of causality is reserved for experimental studies. The gold standard is the double-blind experiment where the researcher manipulates the variable of interest, holding other things constant. There is the need to show the manipulated variable inexorably leads to the outcome.

This is very difficult (impossible) in the social sciences. We therefore use methods that approximate to the experimental method. Confidence in establishing causality can be considered to diminish as we move away from the experimental method. Researchers often consider designs as lying along a continuum of designs running from the experiment, to quasi-experimental interventions, longitudinal designs (as in the study reported here), cross-sectional designs.

Within the social sciences, cause-effect relationships between independent and dependent variables can be inferred when: - (1) X and Y are logically related, i.e., there is a theoretical reason for expecting a relationship to exist; (2) there is a significant and substantive practical effect; (3) there is separation of the measurement of the variables over time, with the cause (independent variable) being measured prior to the effect (dependent variable); (4) other relevant contextual factors have been controlled for; and (5) valid and reliably assessed variables have been measured accurately.

### 5. The evidence

#### Overall context:

The study in question was designed to investigate the relationship between leadership and both staff attitudes and wellbeing at work, and organisational performance among NHS mental health ‘crisis resolution teams’ (CRTs). CRTs, which are multi-professional in their composition, were established in order to achieve the government’s target of reducing the in-patient provision for individuals with mental health problems, by treating them in the community. The criterion for success was a reduction in the ratio of admissions to hospital in relation to the number of cases assessed.

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<sup>5</sup> Alimo-Metcalfe, B. & Alban-Metcalfe, R.J. (2001). The development of a new transformational leadership questionnaire. *Journal of Occupational & Organizational Psychology*, **79**, 1-27.

<sup>6</sup> This study was replicated in a Home Office-funded study involving  $n=1,100$  police officers and staff (Dobby, J. Ancombe, R. & Tuffin, J. (2004). *Police Leadership: Expectations and Impact*. London: Home Office Online Report 20/04, and among  $n=743$  private sector managers (Alban-Metcalfe, J. & Alimo-Metcalfe, B. (2007). Development of a private sector version of the (Engaging) Transformational Leadership Questionnaire. *Leadership & Organizational Development Journal*, **28**, 104-121).

### Point (1): logical relationship

#### Theoretical reasons:

There are theoretical reasons for suggesting a link between leadership and (a) staff attitudes and wellbeing at work, and (b) organisational performance (e.g., Northouse, 2007).<sup>7</sup>

#### Correlational relationships:

In relation to (a), a number of studies have found correlational evidence of such a relationship, e.g., Alimo-Metcalfe & Alban-Metcalfe, 2001; Bass, 1998; Borrill et al., 2005a&b).<sup>8</sup> Also, Alimo-Metcalfe et al., (2007; 2008) found significant 'predictive' relationships on the basis of staff perceptions, using the 'LCCI', which comprised 3 scales: 'Engaging with Others'; 'Visionary Leadership'; and 'Leadership Capabilities' or 'competencies', and different aspects of staff attitudes and wellbeing, using multiple regression analyses.

In relation to (b), a small number of studies have found significant correlational evidence between leadership and performance as rated subjectively by line managers and others, using criteria such as 'team performance' and 'organisation citizenship behaviour'. The Borrill et al. (2005b) study reported a positive, but non-significant relationship between leadership and objective data in the NHS.

### Point (2): significant & substantive practical effect

Hierarchical multiple regression analyses and structural equation modelling in our study showed evidence of a significant, cause-effect relationship between 'engaging leadership' and 'productivity', among multi-professional teams in the NHS, even allowing for the modulating effect of the 9 contextual factors that were assessed.<sup>9 10</sup>

Hierarchical multiple regression and structural equation modelling showed that, of the three scales, only 'Engaging with Others', was significantly related to productivity. For the SEM, using EQS6, Chi Sq = 155.30, p = .00, CFI = .096, RMSEA = 0.05.

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<sup>7</sup> Northouse, P. (2007). *Leadership* (4<sup>th</sup> edition). London: Sage.

<sup>8</sup> Bass, B. M. (1998). *Transformational Leadership: Industrial, Military, and Educational Impact*. Mahwah, NJ: Lawrence Erlbaum Associates; Borrill, C., West., M. A. & Dawson, J. F. (2005a). *The relationship between leadership, people management, staff satisfaction and intentions to leave*. Aston: Aston University; Borrill, C., West., M. A. & Dawson, J. F. (2005b). *The relationship between leadership and trust performance*. Aston: Aston University.

<sup>9</sup> The research was conducted by Real World Group in partnership with King's College London Sainsbury Centre for Mental Health, with a grant from NHS R&D SDO (SDO/22/2002).

<sup>10</sup> Alimo-Metcalfe, B., Alban-Metcalfe, J., Samele, C., Bradley, M. & Mariathasan, J. (2007). *The impact of leadership factors in implementing change in complex health and social care environments: NHS Plan clinical priority for mental health crises resolution teams*. Report presented to SDO.

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Investigation of relationships between leadership and organisational performance are of substantial practical importance to organisations, and in particular the kinds of inter-disciplinary, multi-professional teams that operate in the NHS and elsewhere. However, as noted above, the limited number of studies (mostly in the US) that have shown significant links between leadership and performance have used subjective measures of performance (e.g., managers' ratings of team performance). We are not aware of any studies (up to and including 2009) in which a significant relationship has been established where performance was assessed objectively, and allowance made for the impact of contextual factors.

### Point (3): measures at different points in time

Leadership (independent variable) was measured at Time 1, using the 3 LCCI scales (Engaging with Others; Visionary Leadership; and Leadership Capabilities).

The dependent variable ('productivity', which was assessed objectively) was measured at Time 2. In view of the possible influence of season fluctuations, the average productivity was calculated over a period of 10-12 months, with the first data being collected at least 2 months after completion of the leadership data for the particular team.<sup>11</sup>

### Point (4): other variables

As noted above, relevant contextual factors<sup>12</sup> (e.g., age of the team; social/economic factors; composition of the team) were controlled for.

### Point (5): valid, reliable and accurate assessment

Leadership: Given its provenance, the LCCI can be regarded as a valid measure for assessing leadership, particularly 'engaging leadership'. Reliability (internal consistency) of the 3 scales: -  $\alpha \geq .89$ ; inter-item  $r \geq .36$ ; coefficient of variation, range 21.6 – 26.7. Accuracy: - ratings were team members' perceptions, made under conditions which ensure complete anonymity.

Productivity: This was assessed using the objective criterion of the ratio of assessments to admissions to in-patient care (DoH criterion). The fewer the admissions per assessment, the greater the productivity. The reliability and accuracy of the data were increased by taking an average over a 10-12 month period.

The criterion for success was a reduction in the ratio of admissions to hospital in relation to the number of cases assessed.

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<sup>11</sup> Productivity was calculated as the ratio of assessments made by a mental health 'crisis resolution team' to the number of admissions to in-patient care. The lower the proportion of admissions, the more the team can be regarded as meeting the government's target of treating service users in the community.

<sup>12</sup> Identified by colleagues from King's College London Sainsbury Centre for Mental Health.

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### 6. Interpretation

The reason why the kind of leadership behaviours that affect performance are those assessed in the 'Engaging with Others' scale, relates to ideas put forward by Alimo-Metcalfe and colleagues.<sup>13</sup> If one wants to know what a leader has to do, then ask their line manager, and develop a series of skills or competencies; if one wants to know how a leader should act, ask direct reports and others with whom s/he works.

Where researchers have failed to find significant links between leadership and performance, they have sought to assess leadership competencies.<sup>14</sup> Where, albeit using subjective criteria, significant correlational relationships have been detected, the instrument used was one that assessed the style (or how) of leadership.

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<sup>13</sup> E.g., Alimo-Metcalfe, B. & Alban-Metcalfe, J. (2005). Leadership: Time for a new direction? *Leadership*, 1, 51-71.

<sup>14</sup> See: Bolden, R. & Gosling, J. (2006). Leadership competencies: Time to change the tune? *Leadership*, 2, 147-163; Hollenbeck, G. P., McCall, M. W., Jr. & Silzer, R. F. (2006). Leadership competency models. *Leadership Quarterly*, 17, 398-413.