

# Research leadership: Should clinical directors be distinguished researchers?

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## Abstract

**Objectives:** Clinical directors established research-led healthcare by combining research, teaching and clinical excellence within teaching hospitals. This research culture created high clinical standards, which benefited patients, the workforce and healthcare organisations. The current paper explores this research leadership role for clinical directors. It reviews studies arising from the theory of expert leadership (TEL), which focuses on the relationship between a leader's core knowledge and organisational performance. More specifically, we examine the expert leader's research track record, the associations with their organisation's performance, and the influence of research activity on clinical excellence.

**Conclusion:** Distinguished researchers still lead the most prestigious teaching hospitals and the most trusted departments of psychiatry in the United States where the clinical directorate structure originated. It is also known that good scholars can improve research output when appointed to leadership positions. This suggests that the clinical director's research track record should be a consideration at a time when research is being embedded in Australia's local health networks (LHNs). A clinical director's leadership may influence the research performance of their department and contribute to the quality of mental healthcare.

**Key words:** research, expert leadership, mental health services

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## **Introduction**

Research should be embedded in the health system. This was the recommendation of the McKeon Report (2013), which followed a strategic review of Australia's health and medical research.<sup>1</sup> The review concluded that a research culture generates high clinical standards, which benefits patients, the workforce and healthcare organisations.

The review found, however, that the pressures on service delivery were reducing opportunities for clinical research; hence the Australian health system was being separated from its scientific base. The psychiatric workforce has experienced these pressures, and there are suggestions that Australian mental health services are also becoming detached from the science.

Chur-Hansen (2011) surveyed psychiatrists and trainees on their attitudes towards research and her thematic analysis revealed the tensions between research and clinical care. As one respondent summarised, '*Clinical research has become devalued amongst those in administrative positions within our public health service. The clinical demand/service demand prevent many public psychiatrists from pursuing an interest in research*' (page 20).<sup>2</sup>

Australia's local health networks LHNs are already funded to provide research but this funding is not tracked and the outputs are not measured. LHNs do not generally ring-fence research spending, and given the pressures on service delivery, they often use research funding for other purposes.<sup>1</sup> In response, the McKeon Report (2013) recommended that research activity should be measured using key performance indicators for the LHNs and their chief executive officers

(CEOs).<sup>1</sup> Leadership teams would be given the incentives to develop LHNs into competitive research-led organisations (Table 1). They would need to ensure their workforce had the appropriate training, time, funding, facilities and motivators to undertake clinical research. These working environments would attract talented research-active staff. \

<Table 1>

The current paper examines research leadership. It reviews studies arising from the theory of expert leadership (TEL), which proposes that a leader's core knowledge is a determinant of their organisation's performance.<sup>3</sup> It explores the advantages of appointing clinical leaders with a combination of research and management skills who are able to lead research activity across large and complex health networks. We discuss the implications of these studies for clinical leadership in Australian psychiatry.

### **Clinical directors leading the tripartite mission**

Clinical directorships were first established in prestigious teaching hospitals in the United States (U.S.), most notably Johns Hopkins. These original clinical directors founded the tripartite mission of academic medicine, which combined research, teaching and clinical excellence. As Pennington (2008) described, 'The key to the hospital model was leadership of all units by academic clinicians with questioning minds, contributing to knowledge and committed to services of the highest standard' (page 332).<sup>4</sup>

The Johns Hopkins model united medical schools with teaching hospitals under academic leadership. This approach harnessed medical research to drive innovation and quality patient care. Johns Hopkins proved a hugely successful model with over a century of remarkable medical discoveries and 20 Nobel laureates (McKeon Report Case Study 2.4).<sup>1</sup>

Australia's teaching hospitals were based on the Johns Hopkins model.<sup>4</sup> In the early twentieth century, Australian medical schools and teaching hospitals were collocated with clinical professors appointed to lead the tripartite mission. These institutional partnerships were strengthened during the 1960s and 1970s at a time when psychiatry was establishing itself as a research specialty within the teaching hospitals.<sup>4</sup>

Many prestigious U.S. teaching hospitals still appoint academic clinicians to lead the combined mission of research, teaching and clinical excellence. A recent study found that the best U.S. hospitals are statistically more likely to be led by an academic clinician than a professional manager.<sup>5</sup> This pattern was found among the best 100 hospitals (as ranked by US News and World Report) in three specialities (cancer, heart surgery and gastroenterology). These CEOs were not only medical practitioners, they were also researchers; the average H-Index score for the physician-CEOs in the best 100 U.S. hospitals was 29.

U.S. News Best Hospitals ranking also features an annual Honor Roll consisting of hospitals that achieved the highest performance scores across the medical specialities. These outstanding institutions were, on average, more likely to be led by doctors who were also highly cited researchers.<sup>5</sup> In the 2014-15 Honor Roll, the physician-CEOs had an average H-Index of 60. A

similar pattern was found among the 10 best U.S. psychiatry departments; the departmental leaders were psychiatrists and highly cited researchers with an average H-Index of 48.

It should be noted that the U.S. News Best Hospitals ranking is based on a combination of hospital data and large surveys of doctor's opinions about hospitals providing the best care for patients with serious conditions. Hence, the hospital's reputation is a potential confounding variable in the association between the hospital's ranking and leadership by a doctor who is a highly cited researcher. This association does serve to emphasise that doctors tend to trust doctor-led and research-active hospitals.

### **The research leadership effect**

Does appointing a leader who is research-focused affect the research performance of the organisation? This question was studied in universities. Goodall (2009) looked at the research track records of the executive leaders of the world's top 100 universities (called presidents in the study) and examined whether a university president's research output was associated with the position of their institution in a global ranking.<sup>6</sup>

University leaders' research performance was measured by Web-of-Science citations normalised for discipline. Each university head's normalised citation score was correlated with the position of their institution in the Shanghai Jiao Tong global ranking.

Figure 1 shows the ranking of the top 100 universities broken down into quintiles (on the X-axis).<sup>6</sup> The first column comprises the top 20 universities (No 1 is Harvard). The presidents' lifetime citations are on the Y-axis. Figure 1 shows a monotonic decline in presidents' lifetime citations as the universities go down in world rank. Highly ranked universities have leaders who are more highly cited. It should be noted that in the study scholarship was not viewed as a proxy for management experience or leadership skills; all leaders must be competent managers.

<Figure 1>

A further study used longitudinal data to examine the effect of scholar-leadership on later university performance.<sup>6</sup> The performance of fifty-five United Kingdom (U.K.) research universities was examined over 9 years (in the Research Assessment Exercise<sup>1</sup>) using multiple regression equations with confounding variables. Universities that performed the best over the decade were more likely to have presidents with higher lifetime citations (normalised by discipline). The same statistical relationship was found in a longitudinal study looking at the performance of U.S. economics departments over a 15-year period. More highly cited Chairs led the departments that improved the most.<sup>7</sup>

### **Research and clinical excellence**

The evidence summarised above indicates that good research leadership is associated with better organisational research performance. Researchers tend to create research activity. For the health sector, the next question is to ask: do research-active health services offer better quality care?

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<sup>1</sup> Used to assess UK research output for the allocation of government research funding.

The UK National Health Service (NHS) Trusts are investigating this important question using large datasets drawn from their clinical research networks. It was found that research-active NHS Trusts achieve better health outcomes such as lower mortality rates for acute admissions after controlling for staffing and resources.<sup>8</sup>

Overall, a recent systematic review concluded that health services ‘in which the research function is fully integrated into the organisational structure out-perform other organisations that pay less formal heed to research and its outputs’ (page 5).<sup>9</sup> Research-active health services are more adept at directing research funding to clinically relevant problems. Their clinical practice needs to be at research standard for clinical trials, and they are likely to develop a research literate workforce that makes better use of treatment protocols.

These processes can be important for mental health services.<sup>9</sup> Further Australian studies are required to determine whether research-active clinical directors create the right environment for clinical excellence if they are actively engaged in improving and evaluating patient care under strict research conditions.

## **Conclusion**

Clinical directors negotiate the interface between management and medicine. Hence, they are in an ideal position to develop research programs that meet organisational goals; explore important clinical problems; and contribute to the translation of research findings into better patient care. As medical experts, clinical directors lead by example. Hence, they need to combine research

competence with the management skills required to lead research programs across large and complex healthcare organisations.

Within Australian LNHs, clinical directors mediate between the immediate pressures of service delivery and the longer-term aims of service improvement through clinical research. By balancing these competing demands for their psychiatric workforce, clinical directors can embed research programs that contribute to organisational research activity and the improvement of mental healthcare.

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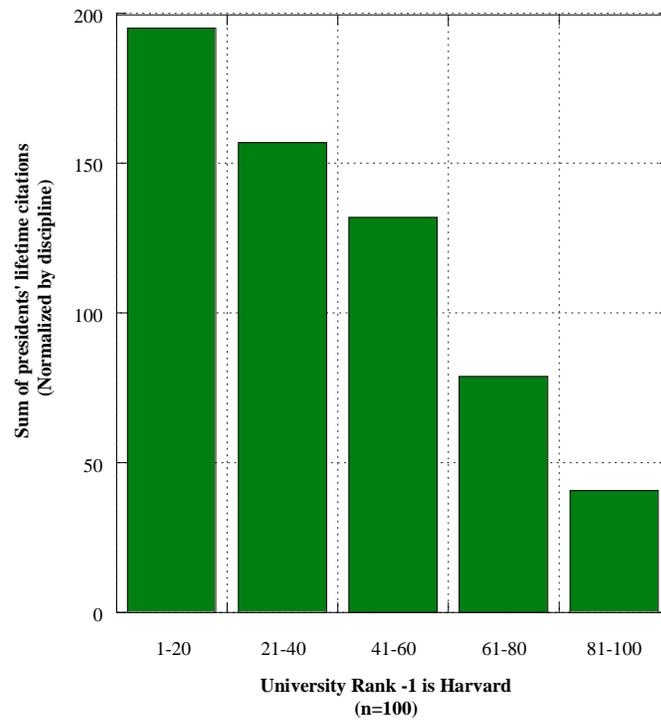
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**Table 1**

<b>Table 1: Research activity in local health networks: auditing the inputs and outputs of clinical research</b>
<ol style="list-style-type: none"><li>1. Monitor allocated research budgets and the actual expenditure on research activities</li><li>2. The amount of additional competitive grant funding</li><li>3. The spending and availability of research infrastructure</li><li>4. The number of research-active health professionals and the total staff time allocated</li><li>5. The number of new and ongoing clinical trials</li><li>6. Total number of clinical trial participants</li><li>7. Research outputs including peer reviewed papers and contributions to national treatment guidelines</li><li>8. Healthcare processes – documented changes in clinical practice</li><li>9. Measurable improvements in the outcomes of patient care</li></ol>

**Figure 1**



**Figure 1: Executive leaders' lifetime citations and their university's ranking**