

# Nursing and Interdisciplinary Research: Phoenix or Dodo?

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**Abstract:** Interdisciplinary research activities are increasing in health care in terms of amount and quality. It is recognised that the global problems facing humankind will not be solved by individual disciplines working in isolation. The purpose of this paper is to examine the issues facing interdisciplinary research and how it impacts on nursing in particular. Some solutions to engendering cross disciplinary research are offered and a definition of interdisciplinary research is shared.

**Keywords:** interdisciplinary research, nursing, cross disciplinary working, research

## Introduction

Internationally, there is a drive towards, and a plethora of incentives for more interdisciplinary research. The reason for this is obvious; big societal problems do not come in neat uni-disciplinary packages. Rather, they will be addressed by the best researchers from different professions investigating global challenges from diverse perspectives. The day of the sole researcher in an isolated lab or in a lonely writer's garret is gone, if it ever existed. However, it has been said that just because a nurse, an engineer, a pharmacist, and a computer scientist are all part of the same research team does not make it interdisciplinary, any more than putting eggs, milk, butter and flour into a bowl automatically produces a cake. What's important is how the components interact, and the transformational potential of this interaction.

Academic disciplines emerge over long periods of time, developing their own history, jargon, journals, approaches, prizes, awards and theories along the way. This has often led to isolation, a phenomenon best illustrated by Charlton et al.<sup>1</sup> They compare the various health disciplines to individual tribes inhabiting adjacent islands in the same part of an ocean. Each tribe has evolved a different culture, different ways of doing things and different language to explain what they do. From time to time, the inhabitants of one island notice those on another island getting excited about some new practice or discovery. However, it makes no sense to them so they ignore it and continue in their isolation.

Such disciplinary segregation and narrow focus have had benefits for some of the more traditional professions but it will be argued here that it has not benefited science as a whole. Moreover, how subject areas are managed and located within universities have not encouraged interdisciplinarity.

## Shared Space

Winston Churchill famously said "we shape our buildings and afterwards our buildings shape us".<sup>2</sup> Because of its late entry into the academy, it is often the case that nursing

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schools are in buildings at a distance from other disciplines, commonly outside the main campus. This has done little to integrate nursing into the fabric of the university or drive interdisciplinary teaching and research. If people from different disciplines do not even go for coffee together, how do we expect them to research together?

This reminds me of what may be an apocryphal story about Steve Jobs. He was overseeing the planning of a new building for Apple Headquarters. The architects proposed a quadrant of buildings - one for the designers, one for the engineers, one for marketing and one for administration. In his own inimical style, Jobs argued that there should be a single building with the washrooms, whiteboards, water cooler points strategically placed. This was to ensure that there would be ample opportunities for people from different disciplines and backgrounds to meet frequently and generate new ideas. Hence the iconic doughnut shaped Apple building in Cupertino, California, which was opened in April 2017.<sup>3</sup>

Innovation and collaboration through being located together is not new. In ancient Athens, the Agora, or business unit, was located beside the Academy on the slopes of the Acropolis. This was to ensure that there was every opportunity for merchants and scholars to meet and share problems and solutions, an early example of cross disciplinary working.

Taking Job's lead, we should work closer with architects and physical resource experts to create interdisciplinary research spaces. In essence, these are like Hadron Colliders – environments where interdisciplinary researchers, health professionals, business and policy makers are encouraged to collaborate and collide innovative ideas off each other. This works best when such individuals are in the same physical space, where they work on a joint problem and where they form a sense of trust and common enterprise. Such an environment becomes a place where interdisciplinary constructive dialogue occurs and, as a result, science progresses. The new Francis Crick Institute, which opened in London in 2016 is based on such a philosophy. The Labs within the building are composed of four interconnected blocks, designed to encourage interaction between scientists working in different research fields.<sup>4</sup>

## Is the Drive for Interdisciplinary Research Good for Nursing?

Compared to some other professions, nursing has only just begun to solidify its presence within the university sector.

Established disciplines like medicine, law and pharmacy have had many decades, if not centuries, to establish deep roots and build their research base. This engenders confidence and a strong body of work that will be strengthened rather than diluted by interdisciplinary collaboration. Further, strategic and substantial funding for nursing research is a relatively new phenomenon and there is a danger that the policy drive to fund more interdisciplinary research will disperse such scarce research funding among more mature disciplines.

There is a related view that academics should start their career by enhancing their research profile in their own discipline. Thereafter, they would have the luxury and reputation to be invited to join and/or lead large interdisciplinary research programmes. From this perspective, getting involved in interdisciplinary research may be seen as too risky for PhD students and early-career researchers. If they lack a disciplinary home it could make it harder for them to publish papers and win jobs and funding. This is recognised as one of the biggest challenges for both academics and funders. Researchers are often only given acclaim for publishing in select journals within their specific field; this discourages individuals from working in partnership with other disciplines.

There is also the view that to be a profession worthy of the name, nurses require a body of knowledge that is unique to nursing. It intimates that borrowed or shared knowledge from established disciplines is only valuable if it pushes forward the boundaries of nursing as a profession.<sup>5</sup> If this stance is supported, then interdisciplinary research would be seen as distracting nurse researchers from constructing nursing's distinct knowledge base. Perhaps Brown et al had the answer.<sup>6</sup> He identified the need for "T-shaped" researchers', who are able to nurture both their own discipline, and to look beyond it. Such investigators work with other disciplines to address global problems, while enhancing scholarship within their own profession.

## An Interdisciplinary Trend in Nurse Doctoral Education

The Research Excellence Framework (REF) is the system for assessing research in UK higher education institutions (HEIs). It was first conducted in 2014, and replaced the previous Research Assessment Exercise. Because of its improved performance in these exercises, nursing across the UK has been allocated increased numbers of full time

PhD studentships. Invariably, these studentships are funded at 25 to 50% of a clinical nurse's salary, which makes them unappealing for many practice based nurses. In contrast, such a stipend is very attractive to graduates from other disciplines such as social science, psychology, sociology, business and management, and arts and humanities. The result is that very good students, who just happen to be non-nurses, are applying successfully for nursing PhD studentships.

While this has increased the amount of interdisciplinary scholarly interactions in UK schools of nursing, there are possible downsides to this phenomenon. First, it could be argued that government funded PhD studentships are being misdirected from nursing to other disciplines. Second, this could reduce the future cohort of nursing scholars. Third, the resultant research is probably not contributing specifically to an unique knowledge base for nursing. Fourth, because they are not nurses, the successful doctorally-prepared postgraduates have limitations in teaching students clinically and so have difficulty gaining employment in schools of nursing. One might also wonder what success they would have in getting their research published in mainstream nursing journals.

## Interdisciplinary Research: The Way Forward

In their report on promoting interdisciplinary research, Lyall and Meagher go some way to addressing these issues.<sup>7</sup> They differentiate “academically-oriented interdisciplinary research” from “problem-focused interdisciplinary research”. The former is an evolutionary process where disciplines have reached the limits of their methodological capacity and have to incorporate learning from other fields. While it may produce some short-term instability, it should lead to the creation of new understandings or disciplines. Past examples include genetic counselling, bioinformatics, and medical sociology. In problem-focused interdisciplinary research, a researcher may see a gap in knowledge and set out to close that gap by bringing together knowledge from more than one discipline. Both of these approaches could help nurses take the lead on interdisciplinary research programmes; but it requires confidence, maturity and the commitment to take on a leadership role in interdisciplinary studies.

There are a number of ways to enhance nursing research so that interdisciplinary collaboration is perceived as positive and something for which to strive. Those established disciplines alluded to above tend to have

created their scientific credibility through the use of quantitative research methods. In contrast, nurse researchers, as with many social scientists, often employ qualitative research approaches. For these disciplines to become research partners, clarity of these methodological approaches is vital. This is especially the case where one discipline's rigorous qualitative investigation can be misinterpreted by another as anecdotal subjectivity. Therefore, a shared understanding of, and respect for, each other's methodological approaches are vital for meaningful interdisciplinary research collaboration. In addition, because terminologies, networks and ways of working may be different across disciplines, valuing diversity is essential for interdisciplinary research to flourish.

For the first time, the forthcoming 2021 REF, provides a definition of interdisciplinary research:<sup>8</sup>

“Interdisciplinary research is understood to achieve outcomes (including new approaches) that could not be achieved within the framework of a single discipline.”

Furthermore, it maintains that interdisciplinary research involved “significant interaction between two or more disciplines”. It may also go beyond traditional ways of applying or assimilating research methods from other disciplines.

In conclusion, some nurse researchers may be concerned that joining with other, more established disciplines, will dilute their ability to formulate their own distinct knowledge base. In contrast, it is argued here that nurse researchers will thrive from greater involvement in interdisciplinary studies. This is because the problems facing the profession and those we care for are so complex that no single discipline and no individual intervention are likely to solve them. For example, better mental health care, improving infant mortality and healthy aging are goals identified by many international organisations. Nurses have a key role in addressing these issues through being partners in, or taking the lead role in, interdisciplinary research programmes.

The Dodo did not survive the arrival of new predators onto its native Mauritius. In contrast, the Phoenix is a bird that continually reinvents itself as its environment changes. As stated at the outset, the big problems facing humankind cannot be solved by any one discipline working alone. Nursing research cannot continue to focus solely on studies pertaining to the development of nursing. To survive and thrive, it must evolve like the Phoenix and embrace interdisciplinarity. To do otherwise will lead to devolution rather than evolution and take the path of the Dodo into obscurity.

## Disclosure

The author reports no conflicts of interest in this work and has no financial interest.

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