

## Commentary

# Leadership of interprofessional health and social care teams: a socio-historical analysis

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### Leadership of interprofessional health and social care teams: a socio-historical analysis

*Aim* The aim of this paper is to explore some of the key socio-historical issues related to the leadership of interprofessional teams.

*Background* Over the past quarter of a century, there have been repeated calls for collaboration to help improve the delivery of care. Interprofessional teamwork is regarded as a key approach to delivering high-quality, safe care.

*Evaluation* We draw upon historical documents to understand how modern health and social care professions emerged from 16th-century crafts guilds. We employ sociological theories to help analyse the nature of these professional developments for team leadership.

*Key issues* As the forerunners of professions, crafts guilds were established on the basis of protection and promotion of their members. Such traits have been emphasized during the evolution of professions, which have resulted in strains for teamwork and leadership.

*Conclusions* Understanding a problem through a socio-historical analysis can assist management to understand the barriers to collaboration and team leadership.

*Implications for nursing management* Nursing management is in a unique role to observe and broker team conflict. It is rare to examine these phenomena through a humanities/social sciences lens. This paper provides a rare perspective to foster understanding – an essential precursor to effective change management.

*Keywords:* history, interprofessional teamwork, leadership, sociology, team collaboration

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## Introduction

The call for effective interprofessional teamwork to deliver safe, high-quality care has echoed across the world for the past 25 years (e.g. Shaw 1970, Gregson

et al. 1991, Firth-Cozens 1998). In general, it is argued that interprofessional teamwork can reduce duplication of effort, improve job satisfaction of staff, help overcome fragmentation of service delivery and improve patient safety and quality (e.g. Molyneux

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2001, Litaker *et al.* 2003, Haynes *et al.* 2009). Similar arguments have also been echoed in a range of national government policies (e.g. Health Canada 2009), professional regulatory documents (e.g. Association of American Medical Colleges (AAMC) 2009) and international reports (e.g. World Health Organisation (WHO) 1988).

While research outcomes have indicated that health and social care professionals can work in an effective manner in a variety of interprofessional teams spread across the continuum of care (e.g. Schmitt 2001, Zwarenstein *et al.* 2009), a growing body of work has also provided an insight into the complicated array of issues that affect teamwork. These include boundary frictions, hierarchical imbalances and power/status inequalities (e.g. Walby *et al.* 1994, Allen 2002, Reeves *et al.* 2009).

Such investigations that have detailed the on-going challenges of working in an interprofessional manner serve as a poignant reminder that such activities take place within a broader and complicated socio-historical context. For nursing leaders, this means that such barriers embedded within the current health care system will make development of interprofessional teams difficult if care is not taken to address existing historic practices that have led to the current status quo. It is this landscape which we focus upon in this paper. To help understand the challenges of leadership within this context, we briefly consider the historical development of the professions. Specifically, we trace their evolution from the European crafts guilds into contemporary professional groups by the use of two examples – medicine and nursing. We then draw upon sociological theory to help understand these historical developments and how they can affect the ability of leaders working in interprofessional health and social care teams.

While the examples given are derived from historical records in North America and The United Kingdom, they are not unique to these jurisdictions. The structures are replicated in virtually every Commonwealth member country, throughout Europe and those nations with a history of European colonization. Variations reflect the degree of medical dominance rather than its presence or absence. Those nations who rely on nurses or other primary health care personnel for the bulk of health care service delivery are rapidly altered when medicine begins to play a larger role – simply because the standard of medical education throughout the world is more similar than the standard of educational preparation for any other health care provider. Thus, the expectations of the medical role have valence internationally.

## The emergence of the guilds

Crafts guilds were established in the 1500s throughout the European continent. These guilds were essentially fraternities of workers whose purpose and function could be regarded as part trade union, part cartel and part secret society. Legally established only through letters patent provided by a political authority or by a monarch, guilds were originally created to control access to trades and to restrict trade in goods to members of the guild, such as, barrel makers, stone masons and weavers. Members controlled ownership of the knowledge and the tools required to create the trade goods and to purchase the required raw materials. Knowledge could be acquired only by joining the guild as an apprentice and learning the craft from established members until one was approved by the guild to become a self-employed member (Epstein 1998).

## Medicine: from guild to profession

In 1505, the Barber Surgeons of Edinburgh, the forerunner of the modern Royal College of Surgeons, were formally incorporated as a Craft Guild of the city in the Seal of Cause (or Charter of Privileges) granted to the Barber Surgeons by the Town Council of Edinburgh (Royal College of Surgeons of Edinburgh (RCSE) 2009). The Seal of Cause conferred a range of privileges and duties upon this Guild. For example it stated:

‘...that no manner of person, occupy or practise any points of our said craft of surgery... unless he be worthy and expert in all points belonging to the said craft, diligently and expertly examined and admitted by the Masters of the said craft and that he know Anatomy and the nature and complexion of every member of the human body...’ (Royal College of Surgeons of Edinburgh (RCSE) 2009).

As noted above, these guilds were established to protect and promote their members’ interests through the ownership of knowledge. Therefore, organizations such as the Guild of Barber Surgeons of Edinburgh also contained the seeds of the modern medical profession. Indeed, medicine can be seen to continue the promotion of the guild development through a concept of professionalism that included restricted entry to practice through exclusive training programmes and licensure, professional cohesion to marginalize competing groups and cultivation of power in political arenas.

In the late 1800s, medicine solidified this dominance by harnessing itself to science to establish itself as the legitimate holder of specialized scientific knowledge.

In Canada, for instance, from 1847 to 1869 the College of Physicians and Surgeons of Ontario and the Canadian Medical Association were formed – thus taking the final step to legitimizing and restricting access to the role of a physician. During this period, similar developments were occurring in the UK with the formation of the British Medical Association. As the first of the health care guilds to professionalize, medicine was subsequently able to ‘dominate all other health professions, control hospitals and effectively lobby for legislation in its own interest’ (Torrance in Frankel *et al.* 1996, p. 52).

An example of the impact of this growing capacity to influence and restrict medical practice was demonstrated when Flexner (1910), funded by the Carnegie Foundation, conducted a review of existing medical schools in North America. While the implementation of the Flexner Report resulted in the establishment of a single standard for medical education, this was at the expense of the closure of many American medical schools that were assessed as ‘insufficiently rigorous’ (Starr 1982, Savitt 1992). The Report also resulted in a reduction of physicians serving disadvantaged areas, as Beck (2004, p. 2139) notes:

[Flexner] caused a disproportionate reduction in the number of physicians serving disadvantaged communities: most small, rural medical colleges and all but two African American medical colleges were forced to close, leaving in their wake impoverished areas with far too few physicians’.

The Flexner reforms also established allopathic medicine (a focus on the body as a machine that can be repaired) as dominant in North America which devalued more holistic approaches. A key outcome of these reforms was a continuing dominance of men of European ancestry in medicine in North America – until recent times. A similar picture evolved in the UK as women, for example, could not obtain a university degree from Cambridge or Oxford Universities until the 1920s. This effectively kept them from obtaining educational credentials equal to that of men in medicine. As a result, very few women were able to enter medicine or many other professions until well into the 20th century.

## The emergence of modern nursing

In contrast to the enterprising Edinburgh surgeons, and medicine more generally, professional registration of nurses in England did not take place until 1921 under the leadership of Mrs Ethel Bedford-Fenwick (1878–1948), a Scottish nurse who campaigned vigorously for registration for trained nurses for many years. In Can-

ada, the province of Ontario established registration for nurses in 1922 but professional self-regulation was delayed until 1963 when the Health Disciplines Act was passed (Ministry of Health and Long Term Care (MOHLTC) 2009). This was almost a century after medicine had achieved professional status.

In spite of the lack of formalized structures various universities and hospitals did offer training programmes for nurses. Most conspicuous was the development of the nurse anaesthesia (NA) programme at the Mayo Clinic in the US. Throughout the late 1800s until the 1920s this group of nurses was both respected and desired by their medical colleagues as valuable additions to the surgical team. Legal challenges to the role of the NA were mounted in the 1930s by various medical groups – most notably in California, perhaps as a reaction to restricted funding available in the depression. While judgements always ruled in favour of the NAs as having a legal right to practice medicine, this could only occur under the guidance of a supervising physician. This was the start of what has been a long struggle leading to many court challenges. The NAs have repeatedly won these challenges which have led to restraining orders against hospitals and insurance companies who restricted their right to practice. However, even today the ongoing skirmishes continue.

This adversarial relationship is in contrast to some countries in Europe where not only do the numbers of NAs exceed those of anaesthesiologists (physicians) but there appears to be a degree of cooperation (International Federation of Nurse Anaesthetists (IFNA) 2009). The key difference appears to be in the authority to practice and be reimbursed. In the US, NAs have desired autonomous practice and the right to bill for their services. In Europe, NA practice is under the supervision of a consultant anaesthesiologist and payment is through a salaried model thus seeming to reduce the friction created by challenges to hierarchical power in the form of authority and payment.

Further evidence of the struggle created when one profession seeks equal authority to physicians can be seen in the US with both the Physician Assistant (PA) role and the Nurse Practitioner (NP) role which have been in existence since the late 1960s (Hedges 2005). The PA role is directly aligned with physicians and regardless of setting, PAs practice under the ‘supervision’ of a physician (Carter & Strand 2000). In the early stages this allowed the role to expand and develop (Mittman *et al.* 2002). With physicians liable for PA practice, they were responsible for the scope of their practice. These early steps allowed control to remain within the physicians’ authority and likely limited

backlash against this new role as it was not perceived as a threat to physician control of medical practice. The recent expansion of the PA role into other countries will serve as a comparison to see whether this acceptance is replicated (Haidar 2008).

Nurses in the NP role have always sought independent authority and a desire to practice without requiring permission of another discipline. Similar to the NA role, nurses continue to threaten medical authority in health care leading to ongoing attacks from organized medicine. Recent investigation of the impact of the role has focused on economic outcomes of physician practice, again suggesting that this historic hierarchy is not only about power in health care systems but also economics (Hedges 2005, Perry 2009). In each phase of expansion PAs have not challenged physician dominance in authority or had a negative impact on reimbursement. Currently, while the Ontario Medical Association opposes the expansion of NP roles (Ontario Medical Association (OMA) 2006), it has embraced the PA role (Ontario Medical Association (OMA) 2009). In Australia, under the guise of collaborative practice requirements the Australian Medical Association supports legislation requiring NPs to be in formal collaborative practices with physicians (Australian Medical Association (AMA) 2009).

The struggle for the development of these nursing roles has been mirrored throughout the history of nursing as a profession. In many ways the development of medicine a century ago now limits nursing, which can be considered behind in similar organizational development. For example, achieving a single standard of nursing education is still an elusive goal in many jurisdictions. The provision of health care outside of medicine became strongly feminized as nurses, midwives and other therapists assumed what were seen as lesser, technical roles under the direction and supervision of medicine. This subordination of other professions is typified in photographs of hospital graduating nursing classes that included the chief of medicine as 'father figure' and the superintendent of the nursing school as 'mother', representing a paternalistic model of education and practice (Bates 2009).

### Use of a sociological lens

Although we no longer use the term 'craft guild', modern professional regulatory bodies can still be viewed as guilds. They control who enters the profession, and through state legal frameworks, they legitimize the scope of practice for members and restrict selected activities to others. This history helps show

why individual professions have developed on the basis of their separateness rather than their togetherness. This legacy strains efforts for interprofessional collaboration and teamwork, and creates a severe headache for those trying to effectively lead teams constituted of two or more professional groups.

The historical developments of the guilds and the emergence of modern health and social care professions can be better understood when one draws upon sociological theory of professional closure (Freidson 1970, Abbott 1988). Based on his exploration of the development of medicine, Freidson (1970) argued that occupational groups, such as medicine and nursing, attempt to professionalize through the engagement of a 'closure' project. The aim of this project is to secure exclusive ownership of specific areas of knowledge and expertise in order to effectively secure economic reward and status enhancement.

To protect the gains obtained from professionalization, Freidson claimed that all occupational groups guard the areas of knowledge and expertise they have acquired primarily through the regulation of entry and the maintenance of professional standards. Tension is, therefore, likely to arise if it is perceived that a member from another profession is infringing their area of expertise. Exploring the issue of professional boundary protection, Abbott (1988, p. 2) stated,

'A fundamental fact of professional life [is] inter-professional competition. It is the history of [this competition] that is the real, determining history of professions'.

Using this theoretical approach, one can see how each of the health care occupations (e.g. nursing, occupational therapy and social work) employed their own respective closure projects in order to professionalize (e.g. Freidson 1970, Witz 1992). However, as noted above, medicine was the first of the occupations to successfully professionalize, it claimed the highly prestigious areas of clinical work – the ability to diagnose and prescribe (e.g. Macdonald 1995). As a result of the timing of their professionalization project and prestigious nature of the areas of knowledge and expertise medicine claimed, one can see that a clear hierarchy operates within the health and social care professions – a hierarchy in which medicine occupies the dominant position based on the gains from its earlier professionalization process. Given this position in health and social care, Willis (1989) argues that medicine can dominate at several levels – economically, politically, socially and intellectually.

Turner (1995) explored the notion of medical dominance over the other health and social care professions,

and argued that this is achieved through the following three processes:

- Subordination – whereby medicine delegates activities to other groups that result in little scope for independence, autonomy and self regulation. Turner argues that medicine has, through the control over childbirth, effectively used this approach with midwifery.
- Limitation – whereby medicine aims to control and contain to a specific part of the body or therapeutic method to create only a narrow professional territory. Turner argues that medicine's historical relationship with dentistry is a useful example of limitation. In relation to dentistry, through its involvement of the creation of this profession, medicine limited the focus of dental work on the mouth alone.
- Exclusion – whereby medicine aims to deny access to alternative and competing clinical practices. The example of medicine's involvement in excluding the clergy from psychological counselling, a role which was traditionally undertaken by this group, as a key example of this particular tactic.

Drawing upon this analysis of the development of individual professions, Evetts (1999, p. 120) has argued that the ongoing effects of professionalization has resulted in,

“The closure of professional markets [...] in particular the monopoly use of expert knowledge for economic gain [which poses] real dilemmas for developments in interprofessional collaboration.”

Indeed, such arguments, as noted above, are supported by a growing evidence base which has provided an empirical insight into the problematic nature of interprofessional teamwork and collaboration (e.g. Zwarenstein *et al.* 2009). Further, the emergence of other technical roles in health care, such as nursing assistants, laboratory technicians, respiratory therapists and paramedics has created opportunities for those professional groups who feel subordinated, limited and excluded by medicine, to establish their relative power over other team members by replicating this behaviour and thus compounding the problem.

### **The leadership ‘challenge’**

As discussed above, the formation and development of health and social care professions has generated a number of tensions for their ability to collaborate in an efficacious manner. Nevertheless, a number of recent shifts towards the use of teamwork to help overcome fragmentation of service delivery and improve patient

safety and quality have emerged. Given this challenging professional context, what then, is the role and contribution of leadership?

The need for a clear leadership role has been found to be central to effective interprofessional collaboration and teamwork (e.g. Field & West 1994, Firth-Cozens & Mowbray 2001, Martin & Rogers 2004, Ross *et al.* 2005). Indeed, as Øvretveit (1990, p. 287) states,

‘The quickest way to establish close and effective teamwork is to start with a clearly defined team leader role’.

However, while the team leader's role is regarded as central to team performance, effectively leading such teams can be challenging. As a result of the historical development of the professions, as we outlined above, each has separate professional responsibilities and different lines of management of members which means that identifying a single leader can be difficult (e.g. Øvretveit 1993, Norman & Peck 1999). Also, leadership is complicated as an interprofessional team may need to change leaders when the care of the patient changes. For example, in general medicine, a patient's medical needs may be straightforward, but their need for social care may become complex. As a result team leadership, ideally, needs to shift from medicine to social work; although professionalization (from the guilds onwards) combined with medical dominance of the care process, can impede such change occurring. This historic approach placed care in the control and coordination of the physician. The complexity of delivering effective health and social care means that no one profession can meet the needs of patients in the 21st century. As a result, a new, more flexible approach to the delivery of care is required. Yet how this will be coordinated for the patient remains, as we note above, lost in professional struggles for control. For nursing leadership, focusing the current debate on this issue will remove the dialogue from one of professional competition to one about the patient, thus linking patient-centred care to the question on how to achieve interprofessional care.

Another challenge facing interprofessional team leaders has been that, traditionally, little training or support for development of leadership capacity has been offered. Consequently, many can become overwhelmed by the complicated array of professional (as well as organizational, economical, logistical, social and political) issues they may encounter on a daily basis. Better preparation, training and on-going support will clearly help team leaders manage, on a local basis, the range of negotiations and decisions they need to undertake with their different team members.

Structurally, however, the configuration of the professions – which emerged from the crafts guild systems over 500 hundred years ago – will continue to make the role of leadership a difficult one, especially as long as this history remains a largely unacknowledged factor. Nevertheless, more recent governmental and societal developments such as patient-centred care, clinical governance, managed care, the rise of consumerism and the development of new professional roles such as clinical nurse leaders (American Association of Colleges of Nursing (ACNN) 2009) may mark a shift towards more collaborative approaches to the delivery of care – this may provide a glimmer of hope for the leaders of interprofessional teams. Still, how far this general democratization of the professions will go is still open for question – only further historical analysis in the years to come will provide the answer(s).

### Concluding comments

As we argued in this paper, leadership of interprofessional teams is a complex task. In particular, the historical legacy of crafts guilds, which were founded upon the protection of their members, and bore modern health and social care professions, have generated a challenging landscape in which leaders need to operate. The use of sociological theory can help understand the nature of these historical processes in more depth. The evolution of the current division of work across health care professions was not purposefully planned. It has been solidified over time by both political and economic factors, making the introduction of interprofessional approaches particularly challenging.

While the 1800s was the time for medicine to organize and frame the current professional landscape, the 1900s gave rise to increasing complexity in care and, along with this, the formalization of other health and social care professional roles. The nature of the exclusiveness of professional education and socialization developed over these centuries has confined the capacity for leaders to create a shared language and purpose. Recognizing the need to find this shared purpose and communication that can enable all professions to understand and speak to one another with ease and mutual respect is the role for leaders as the work of this century.

### References

- Abbott A. (1988) *The System of Professions*. University of Chicago Press, Chicago, IL.
- Allen D. (2002) Time and Space on the hospital ward: shaping the scope of nursing practice. In *Nursing and the Division of Labour in Healthcare* (D. Allen & D. Hughes eds), pp. 23–92. Palgrave, Basingstoke.
- American Association of Colleges of Nursing (ACNN) (2009) *The clinical nurse leader [WWW document]*. URL <http://www.aacn.nche.edu/cnl/Index.htm> [accessed on 30 November 2009].
- Association of American Medical Colleges (AAMC) (2009) *Foundations for Future Physicians*. AAMC, Washington DC.
- Australian Medical Association (AMA) (2009) *GP groups united on collaborative care [WWW document]*. URL <http://www.ama.com.au/node/5133> [accessed on 30 November 2009].
- Bates T. (2009) *Starched White Bibs: Moulding the Student Nurse's Body, Behaviour and Identity*. Presentation to the Margaret Allemand Society for the History of Nursing, University of Toronto, Toronto, ON.
- Beck A. (2004) The Flexner report and the standardization of American medical education. *JAMA* **291**, 2139–2140.
- Carter R. & Strand J. (2000) Physician Assistants: a young profession celebrates the 35<sup>th</sup> anniversary of its birth in North Carolina. *NCMJ* **61**, 249–256.
- Epstein S. (1998) Craft guilds, apprenticeship, and technological change in preindustrial Europe. *The Journal of Economic History* **58**, 684–713.
- Evetts J. (1999) Professionalisation and professionalism: issues for interprofessional care. *Journal of Interprofessional Care* **13**, 119–128.
- Field R. & West M. (1994) Teamwork in primary health care: perspectives from practices. *Journal of Interprofessional Care* **9**, 123–130.
- Firth-Cozens J. (1998) Celebrating teamwork. *Quality in Health Care* **7**, S3–S7.
- Firth-Cozens J. & Mowbray D. (2001) Leadership and the quality of care. *Quality in Health Care* **10**, S3–S7.
- Flexner A. (1910) *Medical Education in the United States and Canada*. Carnegie Foundation for the Advancement of Teaching, New York.
- Frankel G., Speechley M. & Wade T. (1996) *The Sociology of Health and Health Care: A Canadian Perspective*. Copp Clark, Toronto, ON.
- Freidson E. (1970) *Profession of Medicine: A Study of the Sociology of Applied Knowledge*. Harper & Row, New York.
- Gregson B., Cartlidge A. & Bond J. (1991) *Interprofessional collaboration in primary health care organisations*. Royal College of General Practitioners, London.
- Haidar E. (2008) Evaluating patient satisfaction with nurse practitioners. *Nursing Times* **104** (26), 32–33.
- Haynes A., Weiser T., Berry W., Lipsitz S., Breizat A. & Dellinger E. (2009) A surgical safety checklist to reduce morbidity and mortality in a global population. *New England Journal of Medicine* **360**, 491–495.
- Health Canada (2009) *Interprofessional education for collaborative patient-centred practice [WWW document]*. URL <http://www.hc-sc.gc.ca/hcs-sss/hhr-rhs/strateg/interprof/index-eng.php> [accessed on 27 November 2009].
- Hedges J. (2005) Data on cost-effectiveness and outcomes are required before physician extenders can become an integral part of the ED team in the UK health service. *Emergency Medical Journal* **22**, 314–315.
- International Federation of Nurse Anaesthetists (IFNA) (2009) *The Danish Society of Anaesthesia and Critical Care Nurses [WWW document]*. URL <http://www.ifna-int.org/ifnal/page.php?47> [accessed on November 30 2009].

- Litaker D., Mion L., Planavsky L., Kippes C., Mehta N. & Frolkis J. (2003) Physician-nurse practitioner teams in chronic disease management: the impact on costs, clinical effectiveness and patients' perception of care. *Journal of Interprofessional Care* **17**, 223–238.
- Macdonald K. (1995) *The Sociology of the Professions*. Sage, London.
- Martin V. & Rogers A. (2004) *Leading Interprofessional Teams in Health and Social Care*. Routledge, London.
- Ministry of Health and Long Term Care (MOHLTC) (2009) *A history of nursing in Ontario [WWW document]*. URL <http://www.health.gov.on.ca/english/public/program/hhr/nurses/history.html> [accessed on 27 November 2009].
- Mittman D., Cawley J. & Fenn W. (2002) Education and debate: physician assistants in the United States. *British Medical Journal* **325**, 485–487.
- Molyneux J. (2001) Interprofessional teamworking: what makes teams work well. *Journal of Interprofessional Care* **15**, 29–36.
- Norman I. & Peck E. (1999) Working together in adult community mental health services: an interprofessional dialogue. *Journal of Mental Health* **8**, 217–230.
- Ontario Medical Association (OMA) (2006) *Statement in response to the College of Nurses of Ontario on Proposed Legislative Changes for the Regulation of Registered Nurses (Extended Class) [WWW document]*. URL <http://www.oma.org/Health/IPC/PAOMASStatement.pdf> [accessed on 30 November 2009].
- Ontario Medical Association (OMA) (2009) *Ontario medical association statement on physicians working with physician assistants [WWW document]*. URL <http://www.oma.org/Health/IPC/PAOMASStatement.pdf> [accessed on 30 November 2009].
- Øvretveit J. (1990) Making the team work. *Professional Nurse* **3**, 284–288.
- Øvretveit J. (1993) *Co-ordinating Community Care: Multidisciplinary Teams and Care Management*. Open University Press, Milton Keynes.
- Perry J. (2009) The rise of and impact of nurse practitioners and physician assistants on their own and cross-occupation incomes. *Contemporary Economic Policy* **27**, 491–511.
- Reeves S., Rice K., Gotlib Conn L., Miller K.-L., Kenaszchuk C. & Zwarenstein M. (2009) Interprofessional interaction, negotiation and non-negotiation on general internal medicine wards. *Journal of Interprofessional Care* **23**, 633–645.
- Ross F., O'Tuathail C. & Stubberfield D. (2005) Towards multidisciplinary assessment of older people: exploring the change process. *Journal of Clinical Nursing* **14**, 518–529.
- Royal College of Surgeons of Edinburgh (RCSE) (2009) *History of the college [WWW document]*. URL <http://www.rcsed.ac.uk/site/345/default.aspx> [accessed on 27 November 2009].
- Savitt T. (1992) Abraham Flexner and the black medical schools. In *Beyond Flexner: Medical Education in the Twentieth Century* (B. Barzansky & N. Gevitz eds), pp. 65–81, Greenwood Press, New York, NY.
- Schmitt M. (2001) Collaboration improves the quality of care: methodological challenges and evidence from US health care research. *Journal of Interprofessional Care* **15**, 47–66.
- Shaw M. (1970) *Communication Processes*. Penguin, London.
- Starr P. (1982) *The Social Transformation of American Medicine*. Basic Books, New York, NY.
- Turner B. (1995) *Medical Power and Social Knowledge*. Sage, London.
- Walby S., Greenwell J., Mackay L. & Soothill K. (1994) *Medicine and Nursing: Professions in a Changing Health Service*. Sage, London.
- Willis E. (1989) *Medical Dominance: the Division of Labour in Australian Health Care*. Allen & Unwin, Sydney.
- Witz A. (1992) *Professions and Patriarchy*. Routledge, London.
- World Health Organisation (WHO) (1988) *Learning together to Work Together*, WHO, Geneva.
- Zwarenstein M., Goldman J. & Reeves S. (2009) *Interprofessional collaboration: effects on professional practice and health care outcomes*. (Cochrane Review). Cochrane Library. Issue 3, 2009. John Wiley & Sons, London.