Issues in Australian Osteopathic Education

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Abstract

Issues facing Osteopathic education in Australia are considerable. Osteopathic education in Australia has primarily developed from a limited number of individuals in academic institutions, who have worked independently from the profession, government regulatory bodies and with little collaboration with other health care disciplines and providers. With the new higher education reforms of the current government, pressures are being place on providers of osteopathic education to be more efficient and productive in developing competent graduate osteopathic practitioners, and more accountable in providing evidence for the osteopathic discipline to prosper in the Australian health care environment. Viewing Australian Osteopathic education as an organization in the provision of osteopathic practitioners, units (groups or systems) can be defined that require change to realign the development of osteopathic education with current environmental issues of the Australian society that are affecting its future development and continued progression (growth). In brief, Australian Osteopathic education needs to concentrate and centralize its university academic staff, develop an ‘open’ organizational structure, in which individuals as leaders can in the long and short term through collaborative, financial and interprofessional support, and with limited support from its profession and government regulatory bodies who may be impeding their existence. The author in this report proposes because the profession currently has few resources to support osteopathic education, that collaboration with other health care disciplines would provide support for osteopathic leaders in education and research, in a new organization.

Issues in Australian Osteopathic Education

Osteopathic education in Australia has been developing since the early 1900s, with varying success. Three university courses in Australia had been established over the last 20 years. In 2005, the University of Western Sydney (UWS) osteopathic program was been terminated, and at Southern Cross University (SCU), in regional north of New South Wales, a new osteopathic program was established, for its first intake in 2007. All osteopathic programs have been established with minimal direction from the profession and other health care disciplines. Accreditation procedures had been established by state registration boards in this period, and now with the amalgamation of these boards at a federal government level, and the development of a national accreditation committee has provided some direction for these osteopathic educational programs, however these university courses still do not have the support of experienced stakeholders to support their future direction and long term survival in a competitive health care and higher education arena.

On reviewing the development and direction of other health care professions, and their academic training, specialised educational organizations have been developed with a wealth of experience and resources to provide support for their professional education programs and professional associations. The Australian Physiotherapy Council (APC) has been supporting physiotherapy, while the Australian Medical Council (AMC) has been supporting the medical for a number of years. Such organizations have been developed over a number of years, with experience and committed leaders specialising in the development of their education, scope of clinical practice and research. Osteopathic education in Australia would benefit greatly from the development of such organizations, or by being a member of the committees of the allied health care organizations, debating and reviewing the direction of their practice, education and research, and collaborating in the development of future policies affecting the education and scope of practice of osteopaths.

Over the last 20 years, osteopathic education in Australia has primarily been developed in universities complementary to other health care education. At the Royal Melbourne Institute of Technology (RMIT), the osteopathic course has been developed with its alignment to chiropractic and other health care disciplines. At Victoria University (VU), the osteopathic

course has developed in affiliation with other health care disciplines, like Traditional Chinese Medicine (TCM) and nursing. In UWS, the osteopathic course developed in a school with podiatry, occupational therapy, TCM and Naturopathy, and has been exposed to the educational needs of other professions in its development. Furthermore, while the Commonwealth of Australian Governments (COAG) has agreed with the Australian Health Ministers' Conference for the establishment of a single national accreditation board for health professional education and training (Commonwealth of Australian Governments, 2006a, 2006b), state osteopathic registration boards have had their own independent accreditation procedures and committees. In this respect, no single osteopathic entity has been able to clearly define itself as being responsible for the education of osteopaths in Australia. Osteopathic education in Australia has developed as fragmented entity to support the profession and would find solace in networking experienced academic and research staff from educational institutions, from the allied health and osteopathic professions and registration boards in developing appropriate guidelines to osteopathic education and research, and presenting their views with evidence supporting their decision making, direction and outputs of their curricula.

The basis of this report is to use *organisational theory* to review Australian osteopathic education. In using organizational theory, the assumption is undertaken that Australian osteopathic education is represented as an organisational entity for the development of osteopaths in Australia. Normally, organizational theory would apply to a defined organization with aims/goals, administrative and professional resources, osteopathic education though does not exist in Australia as any well defined entity. Robbins and Barnwell state that 'an organisation is a consciously co-ordinated social entity, with a relatively identifiable boundary, that functions on a relatively continuous basis to achieve a common goal or set of goals' (Robbins & Barnwell, 1994, p4). In defining Australian osteopathic education as an organisational entity for the development of osteopaths in Australia, this organisation can be seen to be like many other organizations as defined by Robbins & Barnwell (1994, p188), as an entity within a specific environment, organisation theory can be used to review issues affecting osteopathic education. Such theory reviews the institutions, stakeholders, and policies that govern and influence osteopathic education as an entity, and allow issues to become transparent from different 'lenses' and viewpoints; the organization as a whole with interdependent parts can be explored.

Organizational theory and Australian Osteopathic education

Organisations have been conceptualised using a number of descriptions. Ten descriptions for analysing organizations are defined by Robbins & Barnwell (1994, p9), that can be used to critique the entity of Australian Osteopathic education as:

1. Rational entities in pursuit of goals.
2. Coalitions of powerful constituencies.
3. Open systems.
4 Meaning-producing systems.
5. Loosely coupled systems.
6. Political systems.
7. Instruments of domination.
8. Information-processing units.
9. Psychic prisons.
10. Social contracts.

These descriptions allow an organisational structure to be defined, to identify how tasks are to be allocated, establishment of reporting mechanisms between individuals, and the formal co-ordinating mechanisms interaction patterns that will be followed (Robbins & Barnwell, 1994, p5). As an organization can be viewed as a set of interrelated and interdependent parts arranged in a manner that produces a unified whole, interrelationships are created in the organizational structure between its parts. Within the organizational structure, the interrelationships between its parts are characterised by two diverse forces: differentiation and integration. Specialised functions with an organization are differentiated. In the human body, for instance, the lungs, heart and liver are all distinct functions. Similarly, organisations have divisions and departments like units, each performing specialised activities. At the same time, in order to maintain unity among the differentiated parts and to form a complete whole, every system has a reciprocal process of integration. In organisations, this integration is typically achieved through devices such as co-ordinated levels of hierarchy, direct supervision, and rules, procedures and policies.

Every organization, therefore, requires differentiation to identify its subparts and integration to ensure that the organization or system does not break down into separate elements. While organisations are composed of parts or subsystems, they are themselves subsystems within the

environment or community that they exist. Using this perspective, important insights into the workings of the Australian osteopathic education and profession as organizations can be made, and to conceptualise what it is that these organisations do, and to define the environment in which they exist in the provision and development of Australian health care education in the community, respectively.

Organizations and their systems can be classified typically as either closed or open. Closed organizations are characterized as self-contained, that ignore the effects of the environment on itself (Robbins & Barnwell, 1994, p11). A perfect closed system is one that receives no support, energy or input from an outside source and from which no energy or output is released to its surroundings. Osteopathic university education programs have operated as self contained systems, or closed systems, and can be considered to be the result of the prevalence of this perspective in the stakeholders of Australian osteopathic education.

Open organizations and their systems, however, have characteristics that have relevance to studying Australian osteopathic education as an organization. These characteristic include:

a) Environment awareness where there is a recognition of the interdependence between the organization and its environment. Changes in the environment affect one or more attributes or units of the organization and, conversely, changes in the organization can affect its environment.

b) Organizational boundaries determine where an organization ‘starts’ and ‘stops’. Boundaries can be physical, such as international boundaries which separate one country from another. Other health care professional boundaries can exist between health care professions, such as the prescription of medication by medical practitioners, and not by any other allied health care professions.

c) Feedback is continually received from the environment, allowing an organization to adjust and to take corrective actions to rectify deviations from its prescribed course.

d) Cyclical character of organizational events and actions allows for the survival of the organisation to be maintained.

e) Negative entropy is maximized, preventing an organization to run down, fragment or disintegrate. Closed organizations or systems, because of the lack of external support, energy or new inputs from its environment, will run down. In contrast, an open system is characterised by negative entropy—it can repair itself, maintain its structure, avoid death and even grow, because it has the ability to import more energy than it puts out. An example of this is when your body will replace most of its dying cells in any given year, but your physical appearance alters very little.

f) Movement towards growth and expansion occurs as the organization becomes more complex and moves to counteract entropy. Large corporations and government bureaucracies that, are not satisfied with the status quo, attempt to increase their chances of survival by actively seeking growth and expansion. An organization does not change directly as a result of expansion, as the most common growth pattern is one in which there is merely a multiplication of the same type of cycles or subsystems.

g) Steady state is produced where the quantity of the organization changes while the quality remains the same. Most colleges and universities, for instance, expand by doing more of the same thing rather than by pursuing new or innovative activities.

h) Balance of maintenance and adaptive activities. Open systems seek to reconcile, often conflicting, sets of activities. Maintenance activities ensure that the various subsystems are in balance and that the total system is in accord with its environment. This, in effect, prevents rapid changes that may unbalance the system.

The transformation of Australian osteopathic education to an open organization allows it to recognise its dynamic interaction with its environment and to collaborate with the environment's different workings and structures, which include government policy, professional demands, community health care provision, and tertiary education institutional needs and processes.

Organisations are proposed to evolve through a standardised sequence of transitions as they develop over time; which is defined as a *life cycle*. In applying this proposition, there are distinct stages through which organisations proceed, that the stages follow a consistent pattern and that the transitions from one stage to another are predictable rather than random occurrences (Robbins & Barnwell, 1994, p11). The life cycle of an organization is alleged to progress

through five predictable stages of development, that include a series of predictable transitions (Robbins & Barnwell, 1994, 10) as stated below:

a) Entrepreneurial stage. This stage is synonymous with the formation stage of an organisation in its infancy. Goals tend to be ambiguous, while creativity is high. Progress to the next stage demands acquiring and maintaining a steady supply of resources.

b) Collectivity stage. This stage continues the innovation of the earlier stage, but now the organisation's mission is clarified. Communication and structure within the organisation remain essentially informal. Members put in long hours and demonstrate high commitment to the organisation.

c) Formalisation-and-control stage. The structure of the organisation stabilises in the third stage. Formal rules and procedures are imposed. Innovation is de-emphasised, while efficiency and stability are emphasised. Decision makers are now more entrenched, with those in senior authority positions in the organisation holding power.

d) Decision making also takes on a more conservative posture. At this stage, the organisation exists beyond the presence of any one individual. Roles have been clarified so that the departure of members causes no severe threat to the organisation.

e) Elaboration-of-structure stage. In this stage, the organisation diversifies its product or service markets. Management searches for new products and growth opportunities. The organisation structure becomes more complex and elaborated. Decision making is decentralised.

f) Decline stage. As a result of competition, a shrinking market or. similar forces, the organisation in the decline stage finds the demand for its products or services shrinking.

The unique characteristics that are associated with each stage require modifications in the functioning of the organization, and that management or leaders of the organization are continually introducing changes and re-aligning the organization for long term growth and survival. In the organization, management need to deal with the increase in conflicts, as new people assume leadership, and as there is a natural tendency for decision making to become centralised with the new leadership.

Professional boundaries

Medical doctors are seen as experts in all health care modalities and gate keepers to all health care provisions, but yet have not studied all health care disciplines and modalities. With a focus on a biomedical model / approach to health care, their scope of practice in general practice has focussed on systemic and visceral disorders. With a considerable increase in musculoskeletal management and research, a generalist approach has been adopted by medical practitioners, with referral to specialists in orthopaedics, and neurology being common practice. It is very difficult to acknowledge that medical practitioners have developed expertise in musculoskeletal condition management and treatment, without having pursued further studies in orthopaedics, neurology and manual medicine. With evidence of opposition to osteopathy in Australia from the medical profession (Hawkins & O'Neill, 1990), resulting in protection being provided to medicine, restriction of the osteopathic scope of practice and growth in the osteopathic profession in Australia, it is unlikely an alliance would be forged with the medical profession in Australia to allow a musculoskeletal model of practice to be developed by osteopaths with full access to all health care resources and facilities, similar to those offered to orthopaedic surgeons and neurologists.

In the health care professions, the number of health care models and approaches are implemented (Seedhouse, 1986 p29), that include:

a) sociological approaches to patient care, which try to explain patient care in terms of socio-economic, political, personal, environmental and chance factors
b) medical and biomedical science approaches to patient care, where there is an emphasis on patient care in terms of science and its branches
c) humanist approach to patient care, where there is an emphasis of recognizing that people are complex wholes living within and permanently influenced by a constantly changing world.

In medicine, there has been an emphasis to integrate scientific reasoning into medical practice (Schell & Cervero, 1993, p606). This type of scientific reasoning has been undertaken through the integration of propositional knowledge (in the form of empirical knowledge and research-based theory) into a medical and biomedical model or approach to patient care. From the point of view of an Osteopath, a musculoskeletal model is proposed based on the philosophy and principles of Osteopathic practice, emphasizing the recognition of musculoskeletal causes of

disease and illness, based on professional practice knowledge and Osteopathic theory. A specialized musculoskeletal model of health care practice provided by osteopaths would therefore complement medical professional practice, and the health care practices of allied and alternative health care professions.

One important issue that also needs to be considered is the increased incidence of litigation in the health care disciplines. With considerable workloads on health care providers to be competent in providing a health care service, medical practitioners focussing their expertise on a biomedical model / approach to health care, systemic and visceral disorders are and should be of primary importance to them. Such an approach allows the osteopathic profession with the opportunity to develop as experts in the musculoskeletal domain, pain management and musculoskeletal conditions are and should be of primary importance. Education and research in these health care professions can be tailored to provide a high level of competence in their respective health care provision approaches.

Models of practice in medicine and osteopathy would not be isolated, but would also integrate with all other models of practice. Practitioners in the musculoskeletal model of practice would be to be educated in all aspects of health care that affect the musculoskeletal system and would overlap with other models of health care practice; like those in psychology and sociology. These aspects would include physical and biomedical diagnosis, psychological and sociological review, ergonomics, rehabilitation, exercise prescription, manual medicine techniques, electrotherapies, and even pharmaceutical prescription. These aspects in the provision of health care have been integrated into the American Osteopathic scope of practice.

Pain management in primary health care would encompass the use of Osteopaths as gate keepers, along with other equivalent health care professions. Diagnosis, investigative testing, diagnostic imaging and management protocols/clinical guidelines would need to be integrated in the scope of osteopathic practice. Osteopathic practice in Australia is well positioned educationally to develop as gate keepers of musculoskeletal and pain management. In all osteopathic courses in tertiary education over the last 21 years, all students have been exposed and trained in primary health care. Through institutional accreditation and professional development/retraining, competence in pain and musculoskeletal diagnosis and management would be obtained to become gatekeepers in the health care system.

Alliances in health care education

Osteopathic education in Australia, with support from the Australian medical and other health care professions unlikely in the short term, and with the uncertainty of funding in the tertiary education sector, financial, educational and research support will be difficult. For Australian osteopathic education to produce graduates that can meet the needs of a defined scope of practice, will require the establishment of alliances with health care organizations, groups and individuals, who can provide osteopathic educational programs with particular skills and knowledge that will be required in osteopathic professional practice. These alliances can be established on a number of fronts and in a number of professional activities that can benefit the individuals, groups and organizations concerned. Within Australian osteopathic education, alliances can be created between academic and research staff in tertiary institutions and between tertiary institutions. Health care providers and professions in Australia that would be eligible in supporting osteopathic education include optometrists, nursing, dentists, pharmacists, podiatrists, physiotherapists and radiographers, all of whom have been able to oppose continual opposition from the medical profession to expand and maintain their scope of practice (particularly in the areas of surgery and pharmaceutical prescription), have overlapping professional boundaries with Australian osteopathic practice, and can integrate their professional skills and knowledge with those of osteopaths in the provision of successful collaborative health care. Such alliances have been established in other health care disciplines between health care professions are effective in consolidating and establishing a unified position on issues affecting their growth and progress (Allied Health Professionals Australia, 2006).

Australian osteopathic educators and researchers can affiliate themselves international osteopathic individuals and organizations, who are experience and capable in providing resources, currently unavailable to osteopathic education in Australia. The American osteopathic profession is in a privileged position to support Australian osteopathic research and practice. American osteopaths. The American osteopathic profession has equivalent recognition to that of the American medical profession. The standard of American osteopathic education, with the integration of obstetrics, pharmacy, and surgery into osteopathic education and the profession, have provided osteopathy in the America with expanded professional boundaries. The American osteopathic profession and educational institution can provide integrated specialist health care

and science knowledge into the Australian osteopathic educational organizations, responding to the government policies. American hospitals and health care training facilities were provided for the integration and collaboration of the discipline of osteopathy with main stream health care. American research institutes were established (Gevitz, 2004, p62), which facilitated the production of influential osteopathic research for professional credibility and identity. The strategic planning and quality assurance processes of the American osteopathic education organizations provided leaders for educational and research support, and lobbying groups to protect the continual growth of the osteopathic profession. With professions generally having the instinctive behaviour of being involved in international exchange, increasing provision of professional services to other countries on a world wide basis, in moving individual professions from country to country, in being members of international professional organizations and in recognizing of educational and practice standards from country to country (Professions Australia, 2005, p38), the Australian osteopathic education is in a privileged position to utilise its international osteopathic education organizations, like the Osteopathic International Alliance (Wickless, 2005) to progress through the life cycle of an organization is alleged to progress through five predictable stages of the life cycle of an organization (Robbins & Barnwell, 1994, p10).

Tertiary Education in Australia

Professional education in Australia is concentrated within the tertiary education sector. Health professions have established academic programs in universities and have developed resources and units of study that relate to their discipline. Universities also have research environments to support, and incorporate of new knowledge into academic health professional programs. Osteopathic programs have experienced a similar grounding within their three programs.

Tertiary institutions, subjected to internal and external environments, have been exposed to government policies and decisions that govern their funding and their ability to provide educational programs. In 2002, the Australian Federal government reviewed nursing and medical professions, and these professions were privileged to additional funding for their educational programs(Brendan, 2002, 2003). Higher education was also reviewed and reforms were announced that affected tertiary education institutions and their funding. Revisions were made to the Higher Education Support Act 2003, and a number of disciplines like nursing, medicine and teaching were provided with specific funding under the Act, in funding clusters, to fulfil national priority policies delineated to increase funding to teaching, medicine and nursing. The national priority disciplines were in an advantageous position compared to other health professions, in being provided with additional government funding for their tertiary educational programs, and were able to charge students undertaking these educational programs with reduced payments under the Higher Education Contributions Scheme (HECS).

Universities have been recognised for the development of the ‘knowledge industries’ of global capitalism (Pick, 2006, p269). New higher education policies from the Australian Federal government have been established to emphasize competition, privatization and marketization in a capitalist environment. Under new Higher education funding arrangements, universities will also lose funding between 5% and 7%, if they do not comply with offering staff individually negotiated contracts as an alternative to current collective bargaining agreements (Pick, 2006, p268). The amount of public funding from government has and is expected to fall, as public funding remains relatively constant and not allowing for inflation (Pick, 2006, p272). Between 1995 and 2002, this reflected in an 8% reduction of expenditure per student in higher education (Pick, 2006, p271) Tertiary educational institutions will be required to increase private funding sources, like the number of full-fee paying students, and privately funded research to compensate

for any loss of overall funding. With the capping of course fees by the Australian government in the Act, the ability of tertiary education institutions to generate additional income is limited. As organizations, tertiary educational institutions in order to survive are required to expand and grow, yet with reduced funding this may not occur and tertiary education institutions may be required to curb their spending and become more efficient. The government's new workplace reforms would assist the tertiary institution's goals in achieving these criteria for survival. These workplace reforms are also expected to produce, individualization in tertiary education institutions, where these organizations are being hollowed out from within as academic and research staff themselves compete in an environment where competition, privatization and marketization are major forces, and educational leaders for lose the ability to assert collective authority and control (Pick, 2006, p269). Osteopathic education as an entity needs to consider these issues, and realign itself and the profession with these issues in producing and Australian osteopathic educational organization.

The Higher Education Support Act 2003 differentiated universities and other higher education institutions. A tiered system for tertiary institutions was incorporated within the Act, where research is the primary focus in a number of universities, while others will have a focus on teaching and education (Pick, 2006, p270), resurrecting the pre-1980's situation of dividing tertiary education into 'universities', 'institutes of technology' and 'colleges of advanced education' (Pick, 2006, p270). In the revised Higher Education Support Act 2003, private higher education institutions, that are established locally or by international affiliates, have been allowed to compete with local, publicly funded universities and tertiary education institutions for funding (Pick, 2006, p268). These issues will need to be considered by the Australian osteopathic profession and its professional courses in re-aligning themselves for survival in this highly competitive environment for funding of their education programs.

Nelson's reforms on higher education are a continuation of gradual increase of control of tertiary teaching institutions in Australia by the Federal government (Centre for Postcompulsory Education and Lifelong Learning, p16). The Federal government in 1973 assumed responsibility for funding higher education, although, constitutionally, higher education, including legislation establishing universities and underpinning their governance and the regulation of providers offering higher education programs, is a State government responsibility. The Nelson higher education reforms, through the funding of higher education, is becoming a bureaucratic

imposition of government views on universities and other tertiary education providers(Professions Australia, 2005, p9-19). As a consequence, university autonomy and decision making is being eroded, and the channelling of views from professional bodies, community groups, state and local governments and other stakeholders in the decision making about the mix of courses and the funding of universities are being ignored. Australian osteopathic education needs to consider, in any brief, that to influence the funding and composition of any osteopathic education and research would require collaboration with the Federal government and State governments, as a result of the recent higher education reforms.

The effects and control of funding in Nelson's reforms on professional education can be further extrapolated in clinical education. Medical clinical education has also been affected with a lack of resources, funding and appropriately qualified staff (Dahlenburg, 2006), and the need for more collaboration and consultation between organizations and stakeholders is needed to develop innovative clinical education processes in the current environment. The situation with allied health professions is even more critical (Allied Health Professionals Australia, 2006, p4), where the difficulties in developing university clinical education programs include a lack of clinical placements for training. Students of these allied health professions have been required to petition the federal government (Allied Health Professionals Australia, 2006, p4) , and the Commonwealth of Australia Governments (COAG) is reviewing the demand of clinical training across all health professions and relevant issues to the clinical education of the allied health professions (Commonwealth of Australian Governments, 2006a), as health professional curricula rely on 'situated learning' for the education of health professionals (Professions Australia, 2005, p26). Osteopathic clinical education having been constrained from accessing medical support services and public health care facilities like hospitals (Hawkins & O'Neill, 1990, p23), osteopathic education in Australia needs to consider clinical education issues, as one of the issues that led the closure of the UWS Osteopathic program, where funding for clinical training of osteopaths was expensive and needed to be sought from within a tertiary education institution where funds were limited.

Establishing Osteopathic education and research in Australia

Academic staff for the development of an osteopathic educational program with foundations in research, require collegial relationships in a number of professional domains. In order to develop such relationships, support and sponsors for the development of these individuals is required. The limited support and sponsors in the osteopathic profession has created a lack of collegial relationships not only between the profession and highly motivated individuals for the development of infrastructure in Osteopathic education and research, also between highly motivated individuals in education and research. Views between educational and research academic individuals are personal and competitive, attempting to maintain their short and long term survival. These individuals endeavour to survive in an educational and research environment beyond that of the osteopathic discipline, and eventually enter this environment associated with little affiliation to the osteopathic profession.

Strategies to establish collegial relationships on an individual basis between educators and researchers would require an environment that allows their personal views and experiences to be supported and developed with negative aspects of competition between individuals neutralized. This environment would require individuals with similar ideologies to come together and form an organization, college or institute that allows individuals to develop, yet the college or institution would be seen as a reputable and successful entity in the educational and research domains. Such organizations have been found to exist in a number of professions, and include colleges in the medical profession for specialist branches (like orthopedic surgery and general practice) that promote specialist education and research, the Australasian and New Zealand Association for Medical Education (ANZAME) that constitutes a pro-active organization in the development of innovative educational frameworks and teaching strategies for the medical profession, and the Australian Council of Physiotherapy Regulating Authorities Limited (ACOPRA) influencing government policy by providing advice and information to government, on the practice and needs of the Australian physiotherapy profession. The Osteopathic profession in Australia would greatly benefit from establishing similar organizations in education, research and government policy development.

These professional health care organizations and institutes engender a number of visions and mission statements, and similar organizations and institutes in the osteopathic profession would be required for educators and researchers. Such organizations through their success are respected amongst their peers. While the osteopathic profession is limited in resources and funding, this group would be able to facilitated its own financial stability through the provision of professional services, like that in other health care disciplines.

The organizational life cycle can be viewed on a macro level to determine timelines and stage of development of an organization (Robbins & Barnwell, 1994, p17). Currently, Australian osteopathic education and research is in the collectivity stage of development, where communication and structure within the organisation are essentially informal. Osteopathic academic and research staff are putting in long hours and possess a high level of commitment to the organization they belong. Leaders and mentors are few and far between and isolated from each other. These educational and research staff have the additional responsibility for their professional education programs in being able to source additional funding for their tertiary institution, their educational program and themselves, reducing the time allocated to teaching and research, and the employment of less qualified casual and part-time staff, in the process of cost cutting (Professions Australia, 2005, p40-42). With the limited number of Osteopaths in education and research, these individuals will move into education and research in other disciplines, leave their respective positions, or even move overseas, as academic salaries to attract the most experienced staff are reduced, and opportunities for researchers and educators become fewer and more competitive (Professions Australia, 2005, p24,26,32). In Australian osteopathic education success has been limited because of these issues, that have combined with a lack of innovation, blurred organizational missions and visions, and lost opportunities, particularly with respect to research funding, which was recommended in the *Webb* report, commissioned by the Australian federal government in 1974 to investigate and report on the practices of chiropractic, osteopathy, homeopathy and naturopathy (Webb, 1977) and was not been provided by the government, as lobbying had not been undertaken by the relevant professions.

Conclusions and research issues for investigation

In investigating issues facing osteopathic education in Australia, organizational theory is an effective means for establishing issues and potential avenues for change, in a volatile and competitive environment, where new higher education reforms of the current government, pressures can be made more transparent on providers of professional health care education, self-assessment and mission statement development can be undertaken by stakeholders, funding, professional boundaries and policy considerations can be differentiated and integrated into Australian osteopathic education.

Australian osteopathic education needs to develop as an organizational entity, where control of its growth (expansion) and stability in its future is obtained by its stakeholders. Leaders in this organization representing the education, political, research and professional fields of osteopathy need to be supported and developed. The future of the Australian osteopathic education is fragile and the closure of its UWS program is evidence of an organization that needs re-alignment by becoming an ‘open’ organization, and that should undergo significant re-establishment. Some of the questions that would applicable to the stakeholders for investigation of issues in Australian osteopathic education are provided in the appendix.

In developing Australian osteopathic education as an ‘open’ organization, consensus between the profession, education establishments and research co-operatives would established, through the creation of mission statements that target and force government and stakeholders to bring about change and realignment in policy to the advantage of the osteopathic profession. Issues in strategic planning and quality assurance processes that are required in osteopathic education would be address as an organizational body, by way of collaboration with the professional association, educational and health care institutions, research councils and lobbying groups.

Australian osteopathic education as an organization will be able to prioritize missions and goals through debate and consensus views being acknowledged. Timelines in this organization would need to determined to address issues of mechanisms for access to research funds and support networks, for raising professional credibility and refining / realigning scope of practice, for accessing main stream health care provision was impeded for the discipline of osteopathy to integrate and collaborate with health care provision in the community and health care research.

Osteopathic education and research in Australia would be supported from osteopathic research and professions around the world. Instinctively, academic and research staff in their work support from fellow fraternities internationally, and the training of osteopaths in Australia and around the world would be consistent with the establishment of generic and transferable skills to meet the health care practice anywhere in the world.

In the lifecycle of osteopathic education as an organization, Australian osteopathy is between the entrepreneurial and collectivity stage, and has a long path to follow in becoming an elaborate organizational entity, and will require an increased number of osteopaths and affiliated professionals to accept and become experienced in the roles required by this organization.

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Appendices

Below are questions for further investigation in the research of Australian osteopathic education and research;

a) Have current leaders in osteopathic education developed skills, knowledge and attitudes for developing osteopathic education that addresses needs of patients and the profession in providing competent health professionals of the future?

b) Have mission statements and strategies been established in the education of osteopaths that have re-aligned practitioners with short and long term knowledge, skills and attitudes for the future survival of the profession?

c) What quality assurance processes have been developed and implemented in the education of osteopaths?

d) What models of health care have been established, and has the osteopathic profession re-aligned itself with any particular models of health care, like a musculoskeletal model of health care in association with biomedical and psycho-social models of health care? Does the profession and osteopathic curricula have resources and leaders to develop a health care approach model?

e) Do current osteopathic leaders in education and research have credibility within the profession and in government and community that would allow an osteopathic educational and research institute to be established? Do these stakeholders have strategies for establishing a scope of practice and research infrastructure?

f) What resources and support exist internationally for re-aligning and defining the scope osteopathic practice, and for undertaking research? How can these resources be effectively used for maximum benefit?

g) What would be the outcomes of change and re-alignment of an osteopathic curriculum on the osteopathic scope of health care practice? What outcomes of an osteopathic curriculum would be beneficial, for what reasons and in what areas of health care?

h) Should Australian osteopathic education include hospital or health institution training? If so, why?

i) Is growth/change/re-alignment currently occurring at an acceptable rate, for the osteopathic profession in education, research and scope of practice?

j) What responsibility do stakeholders in the education of osteopaths, research and why?

k) What transitional arrangements would be needed for osteopaths and the osteopathic profession in any realignment of the scope of osteopathic practice?