Importance of workplace knowledge and graduate resilience

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Abstract

Background: Universities strive to improve healthcare by educating future healthcare professionals. This strategy assumes graduates will be able to effectively implement new practices and act as change agents within their professions. However, graduates are likely to encounter numerous barriers to change.

Aim: To identify graduate attributes and educational opportunities that may increase Australian healthcare professionals' capacity to be change agents.

Method: Iterative thematic qualitative analysis of interviews with 64 healthcare professionals and educators.

***Results*:** Healthcare graduates face numerous barriers to implementing change within their professional contexts. Interviewees reasoned that by explicitly discussing coping strategies and common barriers to change, graduates will be better prepared to implement novel practices and aspects of professionalism. Curricula could include mindfulness, reflective practice, self-management, professional burn-out, workplace cultures, organisational structures, dominant professional paradigms and common professional practice. The importance of such curricula is discussed in the context of healthcare education for natural and social sustainability.

Conclusions: A fundamental goal of tertiary healthcare degrees is to improve future professional practice through the education of students. Designing curricula to enhance students' capacity to act as change agents would assist this endeavour. Informed by their professional experiences, interviewees asserted that resilience and workplace knowledge are key graduate attributes that will enhance graduates' capacity to implement change within the healthcare sector.

Keywords: allied health, nursing education, organisational change, organisational culture, organisational structure, professional burnout, professional education, professional power, psychological resilience.

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Introduction

Given their roles in teaching and research, universities are often considered important drivers of innovation and change within healthcare. Through consultation with professional associations, healthcare professionals and other stakeholders, universities strive to train students in best-practice to meet future workforce needs (Frenk et al., 2010; Hoge, Huey, & O'Connell, 2004). This includes training in new healthcare practices and developing novel nuances of healthcare professionalism (Sabin & Moffic, 2011; Williams, Onsman, & Brown, 2009). However, graduates may face workplace barriers that inhibit their implementing new healthcare practices and altering workplace cultures (Cochrane et al., 2007; Fleuren, Wiefferink, & Paulussen, 2004).

Education for sustainability provides students with the opportunity to develop knowledge, skills and motivation to address natural and social sustainability (Dunphy, 2013a; Shephard, 2010). Important social sustainability issues include equitable access to healthcare, legal and political representation, education, housing and nutritious food (Dunphy, 2103a; Manske, 2010). This involves inter- and intra-generational equity (Dunphy, 2013a). Important natural sustainability issues include the maintenance of biodiversity and unique habitats (Dunphy, 2013a; Gomez, Balsari, Nusbaum, Heerboth, & Lemery, 2013). The incorporation of education for sustainability into healthcare degrees aims to alter healthcare to better support the social and natural environments (Dunphy, 2013a; Gomez et al., 2013). This relies upon the premise that graduates will be effective change agents. However, the barriers Australian healthcare graduates face and the strategies required to overcome these barriers have not been identified.

This study aims to identify common barriers to change in the healthcare sector, graduate attributes to address such barriers and educational opportunities to develop these attributes. Qualitative analysis of semi-structured interviews with healthcare professionals and educators from a diverse range of disciplines was conducted. Although discussions focused specifically upon implementing change to address natural and social sustainability, interviewees described general barriers to implementing change across the Australian healthcare sector and desirable graduate attributes and training that may help to overcome these barriers. This paper describes these discussions to inform curricula development, with the aim of providing students with the opportunity to develop pertinent skills and knowledge to enhance graduates' capacity to implement change in the future.

Methodology

Transcripts of semi-structured interviews with 64 healthcare professionals and educators were analysed (Dunphy, 2013a, 2013b). The health professional educators were involved in tertiary education and/or professional development. These participants enriched data by providing information about educational opportunities to support the development of relevant graduate attributes. Practitioners and educators from multiple healthcare disciplines were canvassed due to the systemic nature of the issues being investigated. Approximately 47% of participants were classified as educators. Many of these participants were also current or recently practicing healthcare professionals.

Average interview length was 46 minutes (range of 29–102 minutes). Interviews were digitally recorded before being transcribed verbatim. Chain-referral purposive sampling was used to ensure a wide breadth of healthcare professionals from across Australia participated (Dunphy, 2013a; Penrol, Bray Preston, Cain, & Starks, 2003). Given the geographical spread of interviewees, most interviews were conducted by phone. Where possible, interviews were conducted in person. Members of the project team (including the author) conducted interviews, but a commercial contractor performed transcription.

Approximately 32% of participants performed major roles that traversed multiple disciplines. For example, some educators taught multiple healthcare disciplines, and managerial roles often involved multidisciplinary teams. Excluding these multidisciplinary participants, who were likely to have different perspectives to interviewees with only one major disciplinary focus, the proportion of interviewees from various disciplines were: 31% allied health, 24% nursing and midwifery, 12% public health, 10% medicine, 10% environmental health and 7% community and rural health (Dunphy, 2013a, 2013b).

Interviewees were asked to describe barriers to implementing change and graduate attributes that may overcome such barriers. Data driven thematic qualitative analysis was undertaken by the author throughout and beyond the interview period to identify pertinent themes. An iterative process of analysis and data collection increased the depth of discussion of pertinent issues. Analysis beyond the interview period involved continually revisiting transcripts as concepts developed (Dunphy, 2013a, 2013b).

Institutional ethics approval was obtained from Charles Sturt University. Data was de-identified, with only interviewees' professional discipline(s) noted and, where appropriate, an indication of whether they worked in the private or public sector.

Results

Overview

Qualitative analysis of interviews with 64 healthcare professionals and educators identified major barriers to implementing change within the Australian healthcare sector. It also identified graduate attributes and undergraduate training that may help to overcome these difficulties. Similar themes were identified across all disciplines and regions. However, the contexts of discussions were discipline specific, and special needs of rural and regional practitioners were apparent. Workplace knowledge, coping strategies and change management skills were identified as shared key factors to enhance graduates' capacity to act as change agents, whilst decreasing the risk of professional burnout (Figure 1). Through the development of such knowledge and skills, graduates would embody the attributes that interviewees collectively described as fundamental to effective change agents. These attributes included being persistent, motivated, resourceful, critical, open-minded, accepting, realistic, balanced, positive and supportive (Figure 1).

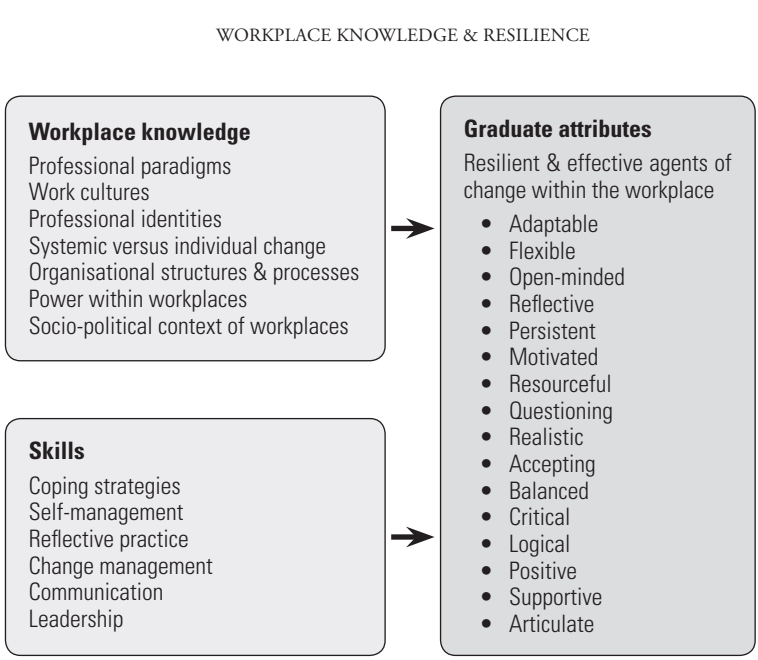

Figure 1. Graduate skills and workplace knowledge.

This figure lists important workplace knowledge and skills proposed to enhance the resilience of graduates and their capacity to implement change in the workplace as adaptable and resourceful healthcare professionals. The knowledge, skills and resulting graduate attributes shown were identified from thematic data analysis.

Interviewees described a disparity between the academic ideals of "best" practice and the practice that students and graduates were likely to be exposed to within workplaces. This included early exposure to workplaces and cultures through workplace learning. Interviewees believed that this disparity could damage the credibility of academics and the practices they espoused, as students' experiences were not reinforcing these practices as part of professionalism in the "real world":

> *The students then go out into the real world, and in their placements, that's not being performed, so there will be a level of frustration as well because they'll go, well, it's not really being done in the real world, so I'll forget about that.* [Podiatrist, public]

The disconnect between best and common practice lead to fears that graduates may be ill-prepared for the realities of workplaces and may become discouraged when trying to implement change. There was a sense that resistance to change could "crush" graduates' motivation unless they were prepared for such resistance and were equipped with coping strategies to enhance their resilience. The discussions emphasised that it is difficult to predict what will significantly impact on healthcare in the future, so it is vital to prepare a resilient and adaptable workforce in general:

> *So we need a resilient workforce that is actually going to be able to not just deal with what's happening now but skill them with the ability to adapt to what changes they may face … in the future.* [Nursing academic and nurse, public]

In courses that lacked this content, there was a concern that graduates will be ill prepared for healthcare practice in general:

> *So we're expecting them—through some form of osmosis—to have these coping skills to deal with huge life events in other people's lives, and in their own, and we're not actually training them to do that.* [Tertiary education, allied health]

Interviewees noted that a lack of resilience increases the risk of professional burnout, leading to a loss of healthcare professionals and decreasing the number of experienced practitioners in Australia:

> *We have a chronic shortage of nurses. We have a burnout time from graduation to burnout of two years within the nursing profession generally. We're educating more and more nurses every day only to continue to have a chronic shortage of experienced nurses. … First and foremost, we actually need a … resilient workforce.* [Nursing academic and nurse, public]

Interviewees asserted that work cultures, resistance to change and resilience need to be incorporated into curricula. The goal is to empower graduates so that they will not become paralysed by self-doubt, organisational inertia or frustration. Provided with the educational opportunities described below, interviewees suggested that students will develop necessary knowledge and resilience to implement new practices and drive change across the healthcare sector. Three intersecting streams of discussion are described:

- Workplace cultures and the socio-political context of workplaces
- Organisational structures and processes
- Resilience, coping strategies and self-management skills.

Workplace cultures and the socio-political context of workplaces

Interviewees suggested that an understanding of dominant professional paradigms and work cultures may help graduates to develop realistic strategies for implementing change and assist them to question and even challenge paradigms/work cultures as necessary. This is important, as interviewees frequently reported that work cultures and professional paradigms or identities have a significant impact on practice and the ability to implement change. Commonly discussed professional paradigms included the medical model of health, patients/clients being viewed as passive recipients of healthcare and a disease model of healthcare rather than preventative healthcare:

> *It's still very much a disease model, the hospital on the hill, you know the doctor is god kind of paradigm. … So adapting the way services are provided and the way community members are viewed in terms of being recipients, passive recipients versus equal partners in health.* [Allied health professional development]

An understanding of work cultures would also allow more realistic expectations of workplaces so that graduates would be more likely to avoid disappointment and frustration:

> *I think we need to really understand the cultures of the workplaces that we're going into … because if you're assuming that things happen a certain way … and it doesn't happen like that in your workplace, you're going to be continually disappointed.* [Nursing academic and nurse, public]

Curricula could include teaching students about the historical and political context of the discipline and how that relates to contemporary societies and their healthcare needs:

> *Certainly, I think it's appropriate for us to teach the politics of the profession and to teach the history, which is very easily forgotten. So, you know, as I've mentioned, our [occupational therapists] understanding … of occupation, is a pre-industrial revolution understanding. So, to actually remind students of that and actually spell out what that means.* [Occupational therapy academic]

Many interviewees reasoned that by "opening up" professional paradigms and broadening professional identities, the healthcare sector would become more adaptable and responsive to change. Interviewees described how workplace power impacts upon the implementation of new practices, and how understanding workplace power is useful to those promoting change. Workplace power was often perceived to be linked to health economics, politics, the traditional dominance of some disciplines and their ideologies, and workplace gender issues. Interviewees described how acknowledgment of such workplace issues can alter strategies to implement change:

> *Gender politics is rife in governments … The real work is done by men in the finance, the engineering sectors. You do find women in positions of authority, but where are they invariably in positions of authority? It's in those caring sectors, the community services, the social planning areas. … I used my man-ness in those environments to discredit some of that sentiment of this is women's work, this is soft, this is not real.* [Community development]

The unequal distribution of power across geographical regions and various divisions of the healthcare sector was also considered an important issue, and the link between healthcare economics and workplace power should be explored. Interviewees suggested that graduates need to understand how funding and disciplinary or organisational divides can impact on the ability to respond to workplace issues:

> *Organisations tend to be a little bit "mine" you know, my patch, your patch … and potentially it comes through with the way that we're funded as well … You're funded for the job, and you have to be accountable for that money, so if the money comes through for you to develop a project on chronic disease, you do.* [Speech pathologist, public]

Being able to creatively use resources in more effective and efficient ways will help to overcome some of the issues of economic restraints, whilst providing quality healthcare. This feeds into the concept that healthcare professionals need to become more adaptable and creative in general:

> *So … how do we sustain the service and providing [sic] the service in an economic environment of limited resources and always needing to do more with less? Needing to be more creative with the resources that we do have available. … Not just financial*

> *resources but our human resources as well. So our therapists need to be able to think outside the square in terms of, how else could I get this outcome for this client other than a one-to-one intervention?* [Allied health case manager, public]

Interviewees frequently described the importance of graduates understanding the political context of healthcare. This affected both the public and private sectors but was particularly apparent in the public sector with interviewees discussing funding issues, public healthcare policies, bureaucratic barriers and workplace power. To effectively implement change and appreciate the complexities of systemic change in the sector, interviewees asserted that graduates must be prepared to consider political issues:

> *Absolutely. I think it really hit me like a rocket in the head the day that I realised that politics and health were intertwined. That if the political wasn't there, it didn't matter if all the evidence said that we needed to change and do X, Y, Z, that it wasn't going to happen*. [Allied health professional development]

Many interviewees reported that the socio-political context of healthcare has resulted in reactive rather than proactive work environments. This reactive nature inhibits big-picture, long-term views that may be required to implement substantial changes within the healthcare sector, such as a move from acute to preventative and holistic healthcare. Within these resource and time constrained environments, there is constant tension between multiple priorities. Graduates will need to be able to effectively prioritise issues and develop attributes that promote a proactive outlook.

Organisational structures and processes

Interviewees suggested that systemic change requires graduates to develop an understanding of organisational structures and processes (Figure 1). Interviewees also stressed that discussing the diversity of healthcare workplaces was an important, but challenging, aspect of curricula. This included discussing the diversity of organisational size, the private versus public sector and metropolitan versus regional and rural services:

> *So I think we need to be careful that we're not just sort of churning out only a graduate that's only trained and only primed for a particular setting. Because allied health professionals [are] ending up working in incredibly diverse workplaces so it's quite challenging to give that overview of how the system works without being too one eyed.* [Allied health professional development]

An understanding of common organisational processes and structures, and how that may impact upon healthcare practice and the implementation of change, was seen as useful.

Curricula could include how organisational plans, mission statements, orientation programs, policies and key performance indicators may impact on healthcare practice, and how they can be used to support change. However, possible disparities between aspirational rhetoric and organisational or managerial structures/processes should be considered, and students should not assume that rhetoric is translated into practice. When considering such issues, the importance of administrative staff, structures and processes should not be overlooked:

> *In this type of organisation, it has all these rhetorical values around sustainability and health and well-being and so forth. Then they actually get in there and find it's a different animal altogether, because it's the people within the bureaucracy who are driving it.* [Community development]

Resilience, coping strategies and self-management skills

Participants contended that graduates will need to be resilient to effectively implement new practices. The goal is to produce graduates who are persistent, motivated and articulate leaders who can effectively respond in a sensitive inclusive manner to new healthcare issues as they arise (Figure 1). To enhance resilience, interviewees reasoned that graduates need to be educated about coping strategies, professional burnout, reflective practice and self-management (Figure 1).

Stress, disappointment and frustration were all commonly described by people attempting to implement change in the healthcare sector. This included dealing with colleagues who ridiculed or disparaged novel views. Discussing strategies to deal with stress and frustration were commonly recommended:

> *I think there needs to also be included in it how to put personal armour on because I think it probably will be dismissed a little bit, even ridiculed as not as important as other areas.* [Health promotion]

One of the greatest risks of low graduate resilience is the development of professional burnout and healthcare professionals exiting the healthcare sector early in their careers. In particular, interviewees suggested that educating students about the signs and symptoms of professional fatigue and stress, and strategies to with deal this, would therefore be beneficial. Resilience may be particularly important for graduates who travel to new areas to begin employment, and therefore have no local social support network, and for those working in rural or regional areas, who may receive less mentoring and local professional support. The importance of support networks, mentoring and participation in professional development processes should be explored. In some cases such curricula is already covered in tertiary studies, but it is not always an assessable formal objective of courses:

> *So one of the things I certainly teach as part of my fourth-year program here is how to avoid burnout. Looking for the signs and symptoms of burnout but also understanding why it happens. So getting the students to really think about how they can best, particularly as rural and regional practitioners, avoid isolation, encourage debriefing, looking for mentorship and mentor support and attendance at conferences. … I mean there's no defined curriculum statement on that, but there's certainly—because of my experience of it—importance to make sure that they understand why things happen to them.* [Podiatry academic]

Although persistence and resilience was repeatedly discussed, interviewees described the importance of a balanced approach, an acceptance of different perspectives and an acknowledgment that graduates may not always achieve their goals. An understanding of workplaces (described above) and mindfulness (described below) would assist the development of realistic expectations.

Interviewees suggested that reflective practice could help graduates to cope with frustration, continue to develop an understanding of the workplace and identify ways to improve the workplace. This could easily be practised and assessed within undergraduate degrees through students developing reflective portfolios on workplace learning experiences. Interviewees suggested that this would help to produce graduates who are more adaptable, persistent and resourceful. Similarly, this reflective practice could help graduates to identify how they are contributing to their workplace culture, and if they are doing so in a positive or negative way. Mindfulness can be viewed as an extension of this reflective practice and could enhance change management and promote proactive and inclusive workplaces:

> *People really struggle to learn about how to be truly reflective practitioners or what the Buddhists refer to as mindfulness, how to really understand ourselves and learn … to understand how we see and interpret the universe is actually only our perspective and that others have different perspectives. It goes right into then how do we manage conflict … If you understand that it's just your perspective about a certain thing, it frees you up then to actually listen and hear another person's perspective.* [Tertiary education and nurse public]

This reflective practice fits in well with self-management education, where self-awareness and identifying barriers that inhibit personal change are fundamental skills. Hence, graduates can use self-management strategies to implement change in their own lives, just as they may educate their patients/clients to do so.

Discussion

To identify common barriers to change within the Australian healthcare sector and graduate attributes to address such barriers, thematic analysis of semi-structured interviews with 64 healthcare professionals and educators was performed. Interviewees described organisational and work culture barriers to implementing new practices. This is supported by literature describing how the socio-political context of workplaces, organisational processes and rules, and managerial structures are all common barriers to change (Fleuren et al., 2004). Such barriers are likely to impact on each stage of change implementation, from initial dissemination to the continuation of novel practices and their evaluation (Cochrane et al., 2007; Fleuren et al., 2004). This may account for reported disparities between evidence-based best practice and common practice (Cochrane et al., 2007). Providing students with opportunities to develop resilience and workplace knowledge may help overcome these barriers, enhance the capacity of graduates to implement new practices and alter concepts of professionalism (Cho, Spence Laschinger, & Wong, 2006; Cochrane et al., 2007). In agreement with healthcare strategic plans, interviewees asserted that an adaptable

and resilient workforce is required to meet future Australian healthcare needs and reduce the risks of professional burnout (Health Workforce Australia, 2011). It will also assist healthcare disciplines to respond to changing social expectations and public perceptions of health and illness (Nancarrow & Borthwick, 2005; Sabin & Moffic, 2011; Williams et al., 2009).

Interviewees contended that resilience may be enhanced by reflective practice, mindfulness, self-management techniques and an understanding of professional burnout (Figure 1). This is supported by literature that describes the importance of self-awareness and stress management, and the difficulties that arise for both students and healthcare professionals that lack these skills (Gupta, Paterson, Lysaght, von Zweck, 2012; Hassed, de Lisle, Sullivan, & Pier, 2009; Shanafelt, 2009). This includes negative impacts on patient care (Shanafelt, 2009). Such studies complement self-management approaches proposed for patients (Williams et al., 2007).

The data indicates that resilience training is being implemented in some Australian tertiary healthcare courses. This endeavour is explicitly supported by some professional competency standards, for example, Australian speech pathologists are required to "show an awareness of professional and personal stress levels. Identify excessive stress and seek support and strategies to reduce its impact" (Speech Pathology Australia, 2011). However, the current data indicates that not all healthcare courses explicitly address this issue. In some courses, it is included but not covered by a formal course objective or assessed. Data suggests that many healthcare professionals and educators believe more needs to be done to promote graduate resilience. International studies of resilience training in medical schools and universities in general similarly indicate that training has been limited, and often offered without being an assessable formal course objective (Dobkin & Hutchinson, 2013; Stallman, 2011). Of 14 medical schools recently identified as teaching mindfulness, only two integrated mindfulness into core curricula (Dobkin & Hutchinson, 2013).

In agreement with the perceived efficacy of resilience training by interviewees, empirical studies indicate that such training alleviates psychological symptoms of stress and increases self efficacy (Melbourne Academic Mindfulness Interest Group, 2006; Sinclair, 2013; Stallman, 2011). Mindfulness training has also been shown to increase empathy and is suggested to increase ethical behaviour (Dobkin & Hutchinson, 2013; Melbourne Academic Mindfulness Interest Group, 2006; Sinclair, 2013). Mindfulness can enhance attentiveness, acceptance, competence, a sense of autonomy, persistence and the ability to prioritise attention for competing cognitive tasks to enhance purposeful action (Keng, Smoski, & Robins, 2011; Sinclair, 2013), all of which would support healthcare graduates to be ethical and effective change agents, as the interviewees described. Additionally, by reducing perceived stress, such training is likely to reduce the risk of professional burnout (Irving, Dobkin, & Park, 2009; Shanafelt, 2009). However, the most effective timing, type and dose of resilience training needs to be determined. The expertise of instructors may alter outcomes, and possible negative

impacts for vulnerable individuals must be carefully considered (Dobkin & Hutchinson, 2013; Irving et al., 2009; Keng et al., 2011; Melbourne Academic Mindfulness Interest Group, 2006; Stallman, 2011).

Interviewees suggested that resilience training may be particularly important for regional and rural practitioners and socially isolated graduates. Additionally, literature indicates that resilience training is important for students from low socio-economic backgrounds, as these individuals are more likely to have fatalistic causal perceptions and poor "control beliefs" that undermine persistence and the ability to cope in difficult situations, and increase susceptibility to burnout (Bosma, 2006; Kristenson, 2006). This may have significant consequences for cultural diversity within the Australian healthcare sector, which is already limited by poor recruitment (Cho et al., 2006; Struber, 2004). Increasing the cultural diversity of the healthcare workforce may help to address racial, ethnic and regional disparities in healthcare, which remain key social sustainability issues (US Department of Health and Human Services, 2006).

Interviewees contended that reflecting upon social, economic and political forces that shape healthcare could help students to develop realistic workplace expectations and improve future strategies to implement change. Proposed knowledge included common organisational structures, professional identities, dominant professional paradigms and common professional practice (Figure 1). Discussions of best practice that fail to situate practice within its socio-political context were considered problematic. Similarly to interviewees, Cho et al. (2006) argued that a mismatch between graduate expectations and workplace cultures/demands can lead to a "reality shock" and professional disengagement. Interviewees suggested that an awareness of workplace cultures may allow graduates to question dominant professional paradigms and ultimately alter concepts of professionalism.

The data indicates that the socio-political context of practice is covered in some healthcare courses but that this is an area perceived to require further development. This endeavour is supported by some professional competency standards, for example, Australian occupational therapists are expected to understand "the impacts of past, present and impending political, legal and industrial issues on the profession, employing body and client groups" (Occupational Therapy Australia, 2010). Literature is available to support the implementation of such curricula (Kenny & Duckett, 2004; Kuper & D'Eon, 2011; Palmer & Short, 2010; Satterfield, Mitteness, Tervalon, & Adler, 2004). However, the current data does not address the efficacy of such curricula in promoting graduates' capacity to act as change agents, and future research is required to determine if graduates will effectively apply this workplace knowledge to implement change.

A broad multidisciplinary focus was required in this study due to the systemic nature of the issues being considered; however, a generic approach to curricula development is not recommended. Further studies focusing on specific healthcare disciplines, the demographics of specific student cohorts (e.g., ratios of socio-economic status) and specific healthcare contexts (e.g., rural versus metropolitan) may help to elucidate the most appropriate training and curricula, and its relationship to existing curricula and accreditation requirements.

Despite the numerous barriers described, both interviewees and the literature suggest that attributes of individual healthcare professionals can increase the likelihood of successfully implementing change. These attributes include resilience, workplace knowledge and change management skills (Fleuren et al., 2004), and may be beneficial whether the graduates are themselves driving change or coping with change that is being promoted by others.

Conclusions

If novel healthcare practices and new facets of professionalism are to be successfully implemented via tertiary education, graduates must be prepared to overcome barriers to implementing change. Barriers include managerial processes, organisational structures, workplace cultures and entrenched professional identities. Informed by their professional experiences, interviewees reasoned that resilience and workplace knowledge are two key graduate attributes that will help overcome these barriers and enhance graduates' capacity to implement change within the healthcare sector.

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