

---

# Clinical education and training for allied health assistants: A narrative review

*Z. Munn<sup>1</sup>, C. Tufanaru<sup>1</sup>, E. Aromataris<sup>1</sup>, L. McBride<sup>2</sup>,  
M. Molineux<sup>3</sup> & A. Pearson<sup>1</sup>*

---

## Abstract

Recent healthcare redesign has been directed at providing more equitable, accessible, efficient and effective patient care. To support these aims, allied health assistants have increasingly been introduced into models of care. Concomitant with the increase of assistants in the workplace has been the introduction of national vocational training programs for allied health assistants in Australia. This review aimed to summarise the Australian and international evidence regarding effective and appropriate strategies for the clinical education and training of allied health assistants.

A systematic search of relevant databases was undertaken during April–May 2011. No time limit was imposed, and only English-language papers were

considered. Grey literature was searched, and a hand search of relevant journals was conducted. Full-text articles were screened by two reviewers for inclusion in the systematic review. Quantitative and qualitative studies were included.

The literature addressing the review questions was scarce and generally of low methodological quality. The results suggest that to incorporate assistants in models of care, strategies such as collaborative education need to be implemented, and these should cover topics such as supervision, delegation and role delineation. In addition, there is a need to promote standardisation of vocational courses. These courses should be relevant for assistants, devote significant time to practical activities and include processes for recognition of prior learning and competencies. The findings of this review may inform policy and practice within Australia related to educating and building an effective allied health workforce that includes allied health assistants as an integral part of the healthcare team.

**Keywords:** allied health assistants, delegated clinical role, education, models of care, role redesign, healthcare team, vocational training.

- 
- 1 Joanna Briggs Institute, Faculty of Health Sciences, University of Adelaide
  - 2 Allied Health Professions' Office Queensland Department of Health, Brisbane
  - 3 School of Rehabilitation Sciences Griffith University, Gold Coast

## Correspondence:

Liza-Jane McBride  
Allied Health Professions' Office Queensland  
Department of Health, Division of  
the Chief Health Officer  
PO Box 2368  
Fortitude Valley, Business Centre, QLD 4006  
Email: Liza-Jane\_McBride@health.qld.gov.au

---

## Introduction

In Australia, as in other developed economies, population growth and increased life span, coupled with the ever-increasing burden of chronic disease, impacts significantly on the health system (Bergin, 2009; Duckett, 2005). Traditional healthcare services are necessarily being redesigned in order to meet the health demands of the population, particularly in delivering healthcare that is equitable, accessible, efficient and effective. Many jurisdictions are changing models of care to ensure that tasks are carried out by the right person, at the right level, performing the right job (Kummeth, de Ruiter, & Capelle, 2001). This strategy saves time and money by ensuring that high-cost staff do not perform tasks that could be carried out by another person with a defined scope of practice at a lower cost-base. This has included the introduction of allied health assistants, who are now utilised in significant numbers across a range of professions within Australia and internationally (Chief Health Professions Office, 2008a; Chief Health Professions Office, 2008b; Hemingway, Freehan, & Morrissey, 2010; Webb, Farndon, Borthwick, Nancarrow, & Vernon, 2004).

Health assistants provide assistance and support to health professionals by whom they are directly or indirectly supervised. Health assistants can have varied roles and may work within professions or across them. The nomenclature for health assistants is diverse (Chief Health Professions Office, 2008b) and includes aides, support workers, support personnel, attendants, paraprofessionals or unlicensed staff

(Australian Physiotherapy Council, 2007). For this review, health assistants will be the generic term used to describe these support roles across the health professions, while allied health assistant will be used to refer to those support roles within allied health.

A systematic review of the roles undertaken by allied health assistants identified provision of direct patient care (Saunders, 1996; Saunders, 1997), such as the implementation of treatment plans under the supervision of a qualified allied health professional, and indirect support, such as performing clerical and administrative duties dependent on service area requirements, to be the primary roles of allied health assistants (Lizarondo, Kumar, Hyde, & Skidmore, 2010). Allied health assistants also enable professionals to spend more time focussed on complex patient care (Duckett, 2005; Hemingway et al., 2010; Loomis et al., 1997). As such, expanding the use of allied health assistants may assist in addressing the increased demand for allied health services (Duckett, 2005; Webb et al., 2004), with significant cost savings and other benefits (Dean, 2009; Lizarondo et al., 2010; Natell, Ahmed, & Banks, 2004; Saunders, 1996; Saunders, 1997).

The Australian and international literature is characterised by diversity, so it is challenging to synthesise experiences documented to date. For example, the increased number and use of health assistants has resulted in the development of a variety of strategies to accommodate this level of worker within healthcare teams and to maximise their potential to improve patient care. Education and training

for health assistants would seem pivotal amongst these strategies as they develop in their role (Fowler 2003; Galloway & Smith, 2005; Hibbert, 2006), yet many health assistants have no formal qualification, often receive little training and have limited opportunities for education (Chief Health Professions Office, 2008a; Cunningham, 2006; Gould, Carr, Kelly & Brown, 2004). There is an acknowledged need for consistency in the training and education of persons at the support level and a need to evaluate the benefits of new models of care which incorporate health assistants (Nemes, 2001).

There are different educational requirements for allied health assistants internationally. Within Australia, formal qualifications for allied health assistants are available through the vocational education and training (VET) sector, which provides qualifications based on the achievement of competencies, delivered via registered training organisations (RTOs) such as Technical and Further Education (TAFE South Australia, 2011) institutions (Chief Health Professions Office, 2008b). These qualifications include Certificate III and Certificate IV in Allied Health Assistance and have been offered since 2007. In addition, recent government strategies targetted towards addressing workforce needs, skills shortages and productivity (Chief Health Professions Office, 2008b) have offered an increased investment and availability of places within these programs.

However, despite formal training being recommended by several allied health professional bodies, such as the Australian Physiotherapy Association

(Australian Physiotherapy Council, 2007), it is neither mandatory nor often required of allied health assistants in Australia. Therefore, allied health assistants may have either minimal or no experience, or extensive experience with no formal qualifications, receiving only 'on the job' training from the supervising health professional (Chief Health Professions Office, 2008a; Chief Health Professions Office, 2008b; Nemes, 2001).

Alongside the recognition of the need for VET programs in allied health assistance, in Australia, and the corresponding investment by government is an increasing amount of international literature with the potential to inform policy. Therefore, identifying and synthesising the existing research evidence could effectively inform policy and practice related to educating an effective and diverse allied health workforce in Australia that includes allied health assistants as an integral part of the healthcare team.

No comprehensive review on this topic has been identified in searches of bibliographic databases. This paper aims to examine questions exploring VET and utilisation of allied health assistants within Australia from findings generated from the international literature and other health professions.

## Aims

Clinical Education and Training Queensland (ClinEdQ) identified a need for a comprehensive review of the Australian and international literature on the education and training of allied health assistants to inform current

and future program development undertaken with partnering TAFEs. Five questions were identified, namely:

1. What are effective/appropriate strategies to increase/promote recruitment and retention of health assistants in vocational training programs?
2. What are effective/appropriate strategies to establish the health assistant role as a recognised delegated clinical role and promote their inclusion in models of care?
3. What are effective/appropriate strategies to promote consistency and standardisation of vocational training delivered to health assistants?
4. What are effective/appropriate strategies to adapt vocational training programs to local context in healthcare?
5. What are effective/appropriate strategies to increase the relevance and understanding of vocational training amongst allied health professionals and health assistants?

## Method

A systematic review following the methodology of the Joanna Briggs Institute (JBI) was conducted (Joanna Briggs Institute, 2008). This included a systematic search, undertaken during April–May 2011, of numerous databases including Medline, Cochrane Library, JBI Library, AMED, CINAHL, EMBASE, PEDro, OTSeeker, Web of Science, ERIC and BEME. Unpublished or grey literature was also searched via Mednar, Google Scholar, Current Contents and ProQuest

Digital Dissertations and was included when relevant to the questions. A hand search of two relevant journals (Journal of Allied Health, Internet Journal of Allied Health Sciences and Practice) was also conducted.

The search aimed to identify studies relevant to the above questions, presenting either quantitative or qualitative data. Search terms included the various allied health professions (e.g., physiotherapy, occupational therapy, podiatry, allied health) combined with various terminology for the assistant role (e.g., support worker, aides, assistants, helper, delegation). These two searches were combined with a final search string including descriptors for education and their role (e.g., education, training, vocation, curriculum, model of care), aligned with the questions. No time limit was imposed, although studies were limited to those reported in English.

Any primary research study (qualitative or quantitative) that directly addressed the effectiveness or appropriateness of interventions or strategies aimed at health assistants to improve their vocational education or training were included as well as studies that addressed recruitment, retention and standardisation of programs. Finally, studies that investigated health assistant incorporation into models of care and strategies addressing assistants from other professions that informed the questions, such as nursing, were also included.

Literature that focussed exclusively on physician's assistants was excluded, as these roles are well developed and highly regulated and so are quite different from allied health assistants in Australia. Articles and papers that

were not primary research, or did not address one of the five questions, were not included in the review.

Citations identified in the initial search were organised in bibliographic software, and then the titles and abstracts were screened independently by two reviewers. Full-text papers of citations that appeared to meet the inclusion criteria were retrieved, and if they directly addressed one of the stated review questions were assessed by two independent reviewers for methodological rigour prior to inclusion in the review using standardised critical appraisal instruments from the Joanna Briggs Institute Qualitative Assessment and Review Instrument (JBI-QARI) and Joanna Briggs Institute Meta Analysis of Statistics Assessment and Review Instrument (JBI-MASARI) (Joanna Briggs Institute, 2008). Any disagreement between reviewers was resolved through discussion and a third reviewer.

## Results and discussion

Australian and international literature addressing the review questions was scarce, and the methodological quality of the studies was generally low. Eighteen studies addressing three of the questions (2, 3 and 5) were identified by the systematic review process (Figure 1). During the literature search and study selection process, a number of articles were identified, including both expert opinion and research papers that did not directly conform to all the inclusion criteria stipulated in the review methods, however still provided useful information to inform the questions. These publications were also included in the following literature

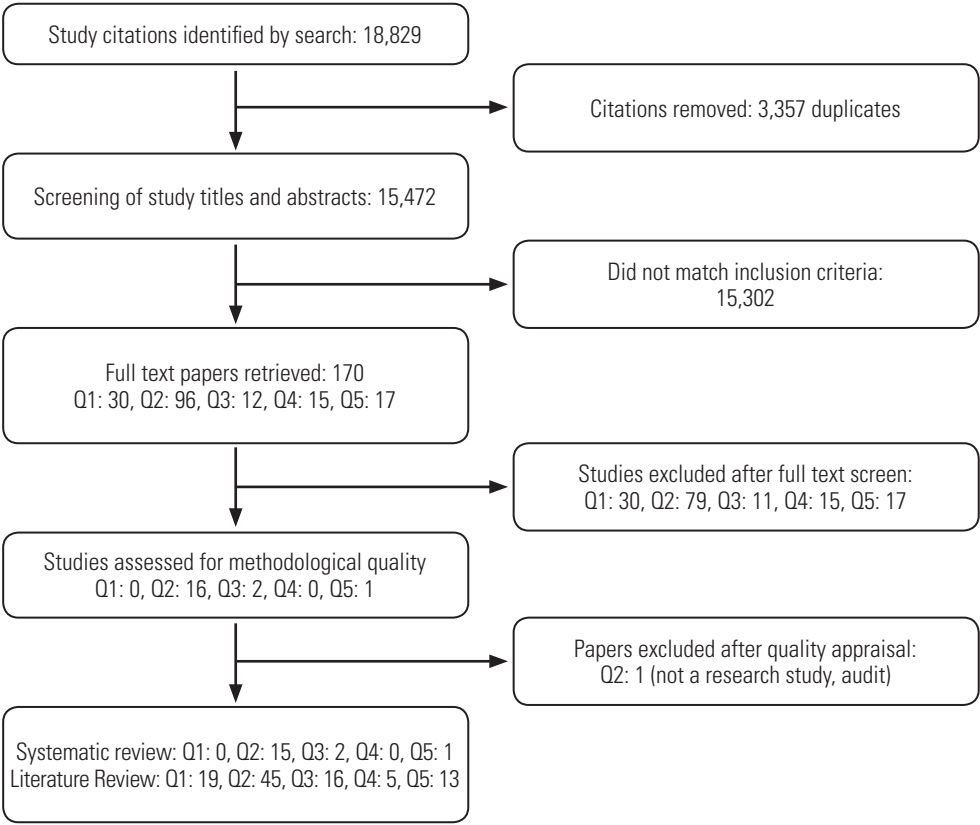
review (Figure 1). These studies were not subjected to critical appraisal. A general discussion addressing each of the five questions follows.

### *Recruitment and retention*

With the introduction of nationally endorsed VET programs offering formal qualifications in allied health assistance, there is a need to adopt strategies to increase and promote recruitment and retention of allied health assistants into these training courses in order to meet workforce needs. The importance of the role of allied health assistants in healthcare and a need and desire for further education amongst health assistants is evident (Fowler 2003; Galloway & Smith, 2005; Hibbert, 2006). Despite this, readily identifiable strategies aimed at increasing the recruitment and retention of health assistants in VET training programs were scarce in the literature.

No studies were identified that directly addressed the effectiveness or appropriateness of recruitment and retention strategies for existing programs. Nevertheless, the available literature revealed a range of factors (that may be relevant to the Australian allied health context) that appear to both motivate and inhibit participation of health assistants in formal training.

Financial considerations figured prominently as both motivators and barriers to health assistants commencing and remaining in vocational training programs. Costs, both incurred directly as fees (Ellis, Connell, & Ellis-Hill, 1998; Hegney, Tuckett, Parker & Robert, 2010) and indirectly due to lost income and the impact on their current



**Figure 1:** Search results and inclusion process

working position whilst taking the time to study, were both impediments to further training for nursing and allied health assistants (Bull & Halligan, 2002; Cottrell, 2000b; Thornley, 2000).

These barriers were addressed using multiple strategies, including paying students to attend class, paying course costs, offering employment following successful course completion and not linking course completion with a requirement to remain at the employer for a period of time (Bull & Halligan, 2002). Conversely, one study noted that nursing assistant students were more

likely to complete a program if students themselves made a small monetary investment (Cherry et al., 2007).

One strategy to support health assistants to increase their knowledge and skills or to become registered professionals is the use of non-traditional educational programs (Kneisley & Heater, 1998). These programs may address commonly identified impediments, including anxiety regarding academic content and ability to complete the course (Felton-Busch, Solomon, & McBain, 2009; Gould, Carr & Kelly, 2006), time constraints (Garcia, Sublett,



Pettee, & Knox, 2003; Hegney et al., 2010) and distance issues for those in rural and remote areas, all issues that have been identified for student nursing assistants (Felton-Busch et al., 2009; Hegney et al., 2010).

Educational programs that included flexibility, such as offering evening and weekend classes, consistent feedback, support and formal tutoring, and intensive academic remediation in writing, maths and reading have been reported to be both desirable and successful when recruiting and retaining participants (Cottrell, 2000b; Goldberger, 2005).

Such additional supports would seem worthwhile, since higher attrition of students has been noted in assistant courses when covering more difficult topics, such as anatomy or physiology (Goldberger, 2005). Furthermore, practical activities and a focus on introducing key skills from the beginning of the program, a hallmark of vocational training, increased both retention and achievement in nursing assistant students (Cunningham, 2006). Increasing the profile and status of the educational qualification may also be of merit. A marked improvement in student numbers and retention was reported when providing students the option to undertake an occupational therapy assistant associate degree that included the option to progress to further professional qualifications (Ahmad & Luebben, 2004).

Recruitment may be hampered by the low profile and lack of awareness regarding allied health assistant roles amongst secondary students and further compounded by students' minimal understanding of how to enter

the allied health assistant role (Ries, 2005). This may be in part due to school counsellors' lack of knowledge regarding the role and its prospects, or a discontented workforce putting off prospective students (Ries, 2005).

Strategies have been employed to address recruitment issues at the secondary school level within Australia, such as school-based traineeships and distribution of promotional information (New South Wales Department of Education and Training, 2008). These methods highlight the opportunities for further education and employment to students, and assist school VET coordinators and career advisers (New South Wales Department of Education and Training, 2008).

In summary, the international literature informing recruitment and retention in VET programs in allied health and nursing highlights a number of potential strategies, many of which the VET sector in Australia has adopted. Vocational training programs for allied health assistants are being delivered in a variety of modalities, such as face to face, workplace based and external study modes using online learning (TAFE South Australia, 2011). In the international literature, these study modes have all been shown to be preferred by health assistants (Cottrell, 2000b; Felton-Busch et al., 2009; Garcia et al., 2003; Goldberger, 2005; Gould et al., 2006; Hegney et al., 2010).

Costs of training need to be addressed, as this has been found to be a substantial barrier to recruitment into courses, and health organisations within Australia should consider providing financial support to staff undertaking such

courses. Policy makers attempting to address recruitment and attrition issues in VET programs should be informed by these motivators and barriers when further exploring and developing strategies for allied health assistants.

The above evidence suggests that financial reimbursement and guaranteed employment upon completion of training may address the financial deterrent to allied health assistant training. Similarly, academic support, program flexibility and program applicability all appear to increase the attractiveness of training programs, and the distribution of information highlighting the health assistant role and its career potential can increase recruitment to allied health assistant VET programs.

### ***The allied health assistant role***

Internationally and within Australia, the role of allied health assistants varies widely and includes both clinical and non-clinical duties (Chief Health Professions Office, 2008b; Chief Health Professions Office, 2009; Hibbert, 2006; Lizarondo et al., 2010). Clinical duties provided by allied health assistants include patient education, clinical procedures and assisting allied health professionals. Non-clinical activities include administrative duties, preparation and maintenance of environments, record keeping, housekeeping and other duties (Lizarondo et al., 2010).

Different allied health bodies in Australia have developed standards or guidance regarding the use of assistants within their profession. (Australasian Podiatry Council, n.d.; Australian

Physiotherapy Council, 2007; OT Australia, 2009); however, further steps are needed to facilitate the incorporation of assistants within models of care within Australia and ensure they have a recognised delegated clinical role.

A number of studies were identified that directly informed the review question. The effectiveness and appropriateness of strategies informed by these studies is highlighted below. Initially, the wider international literature was addressed to further support the relevance and direction of strategies identified. It is worth noting that due to differences in workforce characteristics, it is difficult to apply findings generated from one healthcare setting to another (Chow, San Miguel, LiDonni, & Isbister, 2010).

Although there is strong support for the role of assistants in healthcare (Anthony & Vidal, 2010; Bashi & Domholdt, 1993; Bergin, 2009; Chadwick, 2008; Knight, Larner, & Waters, 2004; Loomis et al., 1997; Webb et al., 2004), barriers still exist to the introduction of assistants into models of care. These include a lack of clarity regarding the exact role of allied health assistants (Lizarondo et al., 2010; Loomis et al., 1997), confusion regarding tasks (Ellis & Connell, 2001; Loomis et al., 1997; Salmond, 1997) and the reluctance of health professionals to relinquish their traditional roles (Lizarondo et al., 2010; Salmond, 1997). In addition, professionals can perceive the role of assistants as a threat to their practice (Bosley & Dale, 2008; Green, 1991; Petrova, Vail, Bosley, & Dale, 2010; Salmond, 1997; Thornley, 2000), which may be due to the boundaries between roles being blurred (Galloway & Smith, 2005; Jelley, Larocque, & Patterson, 2010; Nemes, 2001;



Thornley, 2000) or even controversial (Cottrell, 2000a; Kasewurm, 2005; Nemes, 2001; Plack et al., 2006).

Unfortunately, healthcare institutions may underestimate the complexity of introducing models of care which include assistants (Salmond, 1997), and therefore, administrators should make a commitment to plan for and address all barriers that may arise, particularly those regarding existing personnel and the impact on their roles, satisfaction, sense of trust and competency (Salmond, 1997). Often, support worker roles are not acknowledged in transdisciplinary models of teamwork (Galloway & Smith, 2005), and difficulties forming functional teams arise when they consist of persons with variable levels of education and experience (Forte, 1988).

Education has been highlighted as essential for the successful implementation of new models of care (Russo & Lancaster, 1995), and clear role delineation appears to be an aspect of successful service delivery (Forte, 1988; Knight et al., 2004; Kummeth et al., 2001). A lack of organisational communication about the role of health assistant staff can also lead to confusion about their contribution in the workplace. Regardless of the strategies used, communication with and delegation to support staff appear to be integral parts of delivering care (Anthony & Vidal, 2010; Australian Commission on Safety and Quality in Health Care, 2010; Donahue, Smith, Dykes, & Fitzpatrick, 2010).

Effective delegation is a key factor to promote the inclusion of assistants in models of care. Despite this, delegation is generally not very well understood

(Chief Health Professions Office, 2008b), and professionals are often reluctant to delegate tasks (Conger, 1993; Conger, 1994). Many new graduates, in particular, are not prepared with the skills to delegate upon entering the workforce, as effectively working with assistants and delegation are not covered adequately in education programs (Green, 1991). Due to the difficulties inherent with the delegation of tasks, it would seem pivotal to ensure that delegation is taught to and practised by pre-entry students (Henderson et al., 2006; Saunders, 1997) and through continuing education sessions with qualified professionals (Salmond, 1997).

Ineffective delegation can also occur due to role confusion, inadvertently resulting in a model of care that is both inefficient and ineffective (Salmond, 1997). To appropriately delegate to assistants, allied health professionals need to take into account the training and competence of the assistant, the complexity of the task at hand, level of supervision required and their own professional judgement (Chief Health Professions Office, 2008b). Delegation frameworks have been developed to assist allied health professionals when deciding on the allocation of tasks to health assistants and may be a useful tool to consider in any strategy implemented to include assistants in models of care (Chief Health Professions Office, 2008b; Saunders, 1996).

In order to create an optimal working environment consistent with the delivery of effective care to clients, a partnership relationship needs to be established between allied health assistants and allied health professionals (Scheerer, 2001). Collaborative learning, whereby

professionals and allied health assistants work together either in workshops or during placements, aims to foster positive relationships between the two groups and increase understanding of each other's role (Jelley et al., 2010; Jung, Sainsbury, Grum, Wilkins, & Tryssenaar, 2002; Jung, Salvatori, & Martin, 2008; Plack et al., 2006). When collaborative learning is central to education programs, both allied health assistants and professionals are reportedly better prepared to work with other professional groups once entering the workforce (Jelley et al., 2010; Jung et al., 2002; Jung et al., 2008; Plack et al., 2006).

Education sessions and workshops for assistants and professionals who have already entered the workforce are another strategy identified to help incorporate assistants in models of care (Blechert, Christiansen, & Kari, 1987; Clayworth, 1997; Fronek et al., 2009, Hall, 1998). Such sessions may help define boundaries between assistants and professionals, improve collaboration in the workplace (Fronek et al., 2009) and increase the likelihood of success when introducing the assistant role into the healthcare setting (Clayworth, 1997).

Interprofessional training courses are supported by evidence of positive evaluations from participants in these programs; as an example, one study on nursing assistants highlighted the value of interprofessional training courses in reducing professional boundary violations in the workplace (Fronek et al., 2009). Courses should include supervision, management, delegation, role delineation and working in partnership (Blechert et al., 1987; Clayworth, 1997; Fronek et al., 2009; Hall, 1998). To improve the effectiveness of such courses, consultation with

staff can be undertaken to determine what content should be included in courses and to offer guidance on the tasks able to be delegated to assistants (Blechert et al., 1987; Chow et al., 2010; Salmond, 1997).

In summary, a range of obstacles exist to incorporating assistants into models of care. Healthcare administrators within Australia need to be aware of, prepare for and address these when incorporating allied health assistants into the workplace. Education appears to be an effective way to prepare staff of different levels to work together, and collaborative learning strategies may need to be considered in the Australian setting. Communication was seen as pivotal to incorporating health assistants into models of care (Australian Commission on Safety and Quality in Health Care, 2010) and should receive greater attention. An example in Western Australia shows that delegation and supervision is not well understood (Chief Health Professions Office, 2008b), therefore training for allied health professionals in these areas would be useful.

Finally, analysing and designing the role assistants are to play in a specific setting, preferably in consultation with staff, can facilitate their inclusion in models of care. However, there is still a need for further research on the role of health assistants within allied health and how they can be better incorporated into healthcare teams (Atwal, Tattersall, Caldwell, & Craik, 2006).

### ***Consistency and standardisation of VET delivered to health assistants***

A common theme identifiable amongst the international literature was the need to establish national standards around VET qualifications for assistants

(Arblaster, Streather, Hugill, McKenzie, & Missenden, 2004; Douglas, 2000; Jelley et al., 2010; Kendall-Raynor, 2007; Marshall, 2006). For example, the impact of a lack of standardisation results in nursing assistant training not being recognised between states (Nakhnikian, Wilner, & Hurd, 2002). Furthermore, multiple accreditation standards are problematic, as they confuse the public, do not ensure minimum competencies nor promote delegation, all of which would allow professionals to spend more time delivering patient care (Sengupta, Harris-Kojetin, & Ejaz, 2010).

Currently, across all health disciplines, the clinical training that many health assistants receive is variable, and in many areas, they receive little or no training (Bosley & Dale, 2008; Chief Health Professions Office, 2008b; Field & Smith, 2003; Priestley & Selfe, 2003). Both cost of and time taken to complete training fluctuate widely, and despite the support for national regulation of training, in reality this often does not occur (Kendall-Raynor, 2007).

This training ranges from short, in-service training sessions, on the job training, vocational programs and degree programs. Programs designed to support, retain and increase competencies have demonstrated varied success within allied health and nursing (Arblaster et al., 2004; Douglas, 2000; Jelley et al., 2010).

In Australia, in an effort to promote consistency and national standardisation of VET delivered to allied health assistants, the Certificate III and IV in Allied Health Assistance has been introduced. In the Australian VET sector, qualifications are provided based on either nationally endorsed competency standards or standards developed by relevant professional,

industry, enterprise or community groups (Australian Qualifications Framework Advisory Board, 2007).

These VET training packages offer a consistent and standard approach to training allied health assistants via mandatory components incorporating competencies, assessment and a predefined framework for qualification.

National vocational qualifications for assistants in all professions have received support, as they provide recognition for previously demonstrated skills and knowledge (Daykin & Clarke, 2000), and they address the ideal that 'patients deserve to be served by a qualified and appropriately credentialed work force' (Sengupta et al., 2010). The national approach to training of allied health assistants adopted within Australia is justified for a variety of reasons, such as ensuring minimum competencies and promoting delegation, therefore adopting a single standard for education, training and certification is preferable (Nakhnikian et al., 2002).

The international literature reveals that setting national standards potentially offers a range of benefits not only for allied health assistants but also education institutions, educational programs and health professionals (Barr, Gwyer, & Talmor, 1982). For example, in the UK, a national framework for therapy support worker education and development has been established that offers guidance for continuing professional development. This was created as a collaboration between the Chartered Society of Physiotherapists and the College of Occupational Therapists (Everett, O'Siochru, & McPherson, 2005) and can be used to standardise training programs.

Within Australia, beyond the introduction of the Certificate III and IV in Allied Health Assistance, the Australian Physiotherapy Council guidelines for physiotherapy assistants provide recommendations for education and training of assistants and aides, and also recommend a minimum set of topics required to be included in education programs (Australian Physiotherapy Council, 2007).

In summary, the above evidence suggests that national standards allow recognition of qualifications and competencies associated with them nationally.

### ***Adaptation of VET programs to local context in healthcare***

Australia is culturally diverse (Freeman, 1993; Goodale, Spitz, Beattie, & Lin, 2007), so there may be a need to consider adapting any VET program to ensure training is suitable for the local context. Despite the need for evidence regarding appropriate and effective strategies to adapt VET programs to local contexts in healthcare, there was a paucity of literature addressing this topic. The small amount of international literature identified for this topic indicates that VET programs may benefit from contextualisation to local contexts, taking into account (depending on the setting) local population demographics, geography and local healthcare staff shortages (Bigelow, 2010; Engle & Bethell, 1977; Fitzgerald et al., 2009; Freeman, 1993; Goodale et al., 2007).

### ***Increasing the relevance and understanding of VET amongst allied health professionals and health assistants***

To ensure VET-based programs are successful for allied health assistants

in Australia, it is important that they are relevant to trainees and recognised as valuable by both assistants and professionals. The importance of providing adequate recognition of prior learning and current competencies has been highlighted and also identified in focus group interviews as a strategy to increase the relevance of vocational training amongst allied health assistants (Chief Health Professions Office, 2008b; Chief Health Professions Office, 2009; Newton & Kirk, 1999). Vocational education and training programs in Australia currently accommodate recognition of prior learning for allied health assistants (TAFE South Australia, 2011).

In allied health, it has been suggested that the knowledge and skills assistants require are most efficiently and effectively taught at the technical level (Royeen, Barnett, Eberhardt, Walski, & Youngstrom, 2003). However, it has been found that health professionals may not respect technical level education for assistants (Natell et al., 2004) and that assistants are often not utilised nor enabled to achieve their full potential. Therefore, the content and depth of VET programs should be carefully considered and defined (Parry & Vass, 1997).

The health assistant requires clinical training related to the tasks they are to perform, with assessment of their competence and ongoing supervision. Examples from nursing suggest that to increase relevance to health assistants, training should focus on practical aspects (Saunders, 1997) as this results in higher satisfaction with courses (Cunningham, 2006; Lin, Yeh, Yang, Tseng, & Yeh, 2003). This is consistent with evidence that adult learning techniques currently

employed within VET programs promote participation and active learning (Cunningham, 2006; Guariglia, 1993; Jellema, Bair, Tuohig, & Wright, 1997; Kemeny, Boettcher, DeShon, & Stevens, 2006; Teevan & Gabel, 1978).

In summary, there was a lack of research reporting on effective or appropriate strategies to increase the relevance and understanding of vocational training amongst allied health professionals and allied health assistants. VET programs should be carefully designed, focussing on practical tasks and utilising adult learning techniques, with recognition of prior learning.

## Conclusion

Amongst the Australian and international literature, there is currently a paucity of evidence regarding strategies to promote and retain health assistant students in VET programs and to maximise their potential in the assistant role across the health workforce. This lack of research is particularly noticeable when considering allied health assistants specifically, and much of the literature that is directly relevant to these issues is of a questionable methodological quality. However, there is information that addressed the questions of this review and so could inform future developments within Australia.

From an allied health and nursing perspective, motivators and barriers to recruiting and retaining assistants in vocational training programs were identified. To incorporate allied health assistants in models of care, strategies such as collaborative education should be implemented, and these should cover topics such as supervision, delegation and role delineation. Due to the current

inconsistencies and variability in training programs for assistants, there is a need to promote the use of nationally standardised courses. Given the limited work that has been completed to date, it seems that Australia might be at the forefront internationally in this regard. Vocational training programs should be relevant for assistants, devote significant time to practical activities and include recognition of prior learning and competencies to further increase their attractiveness.

In Australia, the Certificate III and IV in Allied Health Assistance were introduced and nationally endorsed to increase the skills in this important staff group. These qualifications are offered through the VET sector, and it seems that implementation of these programs has addressed many of the issues identified in the literature. Notwithstanding the limitations of the evidence, this review provides a comprehensive discussion surrounding issues of VET for allied health assistants derived from the field of allied health and beyond, and the information presented may be considered to inform current and future policy and practice within Australia.

## Acknowledgements

This review presents the findings of a report conducted by the Joanna Briggs Institute that was funded and commissioned by Clinical Education and Training Queensland (ClinEdQ) within Queensland Health under the Research and Publications Initiative, 2011.

## References

For a full list of references, please contact the corresponding author.