National Disability Services

ROADMAP TO A SUSTAINABLE WORKFORCE

A National Disability Services Report
prepared for the Australian Government
Department of Social Services

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PROJECT REPORT FIVE

Analysis of allied health education and training in the disability sector

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This report was prepared for the Australian Government Department of Social Services and is one of a set of six reports accompanying the main report – Roadmap to a Sustainable Workforce.

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National Disability Services

National Disability Services is the peak body for non-government disability services. Its purpose is to promote quality service provision and life opportunities for people with disability. NDS's Australia-wide membership includes more than 900 non-government organisations, which support people with all forms of disability. NDS provides information and networking opportunities to its members and policy advice to State, Territory and Federal governments.

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Centre for Applied Disability Research
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The **Centre for Applied Disability Research** exists to improve the wellbeing of people living with disability by gathering insights, building understanding and sharing knowledge.

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BACKGROUND

One impact of the rollout of the National Disability Insurance Scheme (NDIS) is likely to be rapid growth in the disability workforce. Allied health professionals are an integral part of this workforce, supporting people with disability to maximise their potential and live the best life possible.

Preparation of allied health professionals to work in this new environment is extremely important for their recruitment and retention in the field, as well as effective service delivery to NDIS participants. Effective workforce preparation may also support the wider implementation of the NDIS within the broader community. This will enhance the ability of people with disability to live a more meaningful and socially inclusive life, reflecting key principles under the National Disability Insurance Scheme Act 2013 (NDIS Act). This paper explores emerging issues in the areas of academic and practical preparation of allied health students, and recruitment and retention of new graduate allied health professionals in the disability sector.

The following sections describe the 'next steps' necessary to begin addressing some of the identified emerging issues. These are activities that we believe need to be implemented swiftly to ensure continuity and appropriate preparation and recruitment of the allied health disability workforce. We also present a set of recommendations in each area, longer-term issues that need addressing through either further exploration or longer-term development. All 'next steps' and recommendations proposed in this report are summarised in Appendix A.

For the purposes of this project, the following allied health professions were included:

- Physiotherapy
- Occupational therapy
- Speech pathology
- Social work
- Psychology.

There are a variety of other allied health professions that are also critical to supporting people with disability to live a more meaningful and socially inclusive life. These include, among others, audiologists, dietitians, exercise physiologists, orthotists/prosthetists and podiatrists. Although the current project did not focus on allied health and training needs across a broader range of allied health professions, it is likely that findings and recommendations may reflect similar concepts relevant to these disciplines.

For the purpose of this mini-project we used the following description of people with disability from the NDIS Act: People who may require support under the NDIS include those whose disability may be attributable to a broad range of impairments or conditions, including intellectual, cognitive, neurological, sensory or physical impairments or to one or more impairments attributable to a psychiatric condition.

This report addressed the three broad questions of:

1. What is known about good practice in university education in the allied health professions in the area of disability?
2. What is known about good practice in attracting and supporting new graduate allied health professionals in the disability field?
3. How can this good practice be extended or built on to ensure the continuation of a strong allied health workforce to support people with disability in the NDIS context?

Project methods

To address the questions above within the required timeframe, we used a range of methods to gather relevant information. In particular, we:

- conducted a desktop audit of accreditation requirements for the professions of speech pathology, occupational therapy, physiotherapy, social work and psychology;
- conducted searches of international literature and Australian websites for examples of good practice in learning and teaching in disability in allied health courses. We also asked our informants to identify examples they were aware of

- completed a rapid literature review about recruitment and retention of allied health professionals in the disability sector;
- led focus group discussions with Faculty of Health Sciences, University of Sydney, Work Integrated Learning Team regarding potential models of providing clinical education placements in the disability sector;
- searched for case studies of innovative, sustainable models of providing clinical placements in the disability sector using the internet and information from our informants;
- conducted phone or face-to-face interviews with over 30 key people representing peak government and non-government bodies, expert individuals, allied health employees and managers in the disability sector; and
- disseminated and received feedback from a variety of stakeholders on an earlier draft of this document.

GOOD PRACTICE IN UNIVERSITY EDUCATION IN THE ALLIED HEALTH PROFESSIONS IN THE AREA OF DISABILITY

1. Review of accreditation requirements for allied health degrees

One way of assessing for the presence of disability-specific content and/or practical learning experiences in allied health degrees is to examine their accreditation requirements. Accreditation of courses for the registered professions (physiotherapy, occupational therapy, psychology) is delegated to approved accrediting bodies, such as professional associations, by the Australian Health Practitioners Regulation Authority (AHPRA). Courses for the unregistered professions (speech pathology and social work) are accredited by their respective professional associations.

In general, accreditation standards are developed, reviewed and maintained by professional associations in consultation with members. As all courses must meet accreditation requirements, these requirements are a major driver of curriculum content. Accreditation requirements relate specifically to the preparation of 'entry-level' allied health professionals. These entry-level graduates may have completed undergraduate or coursework masters degrees. Accreditation requirements are not relevant to postgraduate advanced learning masters programs, except for programs in psychology.

Appendix B lists courses offered in psychology, speech pathology, occupational therapy, physiotherapy and social work in Australia. The appendix also notes accreditation requirements for disability in each of the professions. In general, disability is reflected in these documents in terms of the sector that professionals may work in, the type of clients they may work with, or their ethical and attitudinal requirements.

The accreditation requirements for speech pathology, occupational therapy and social work are broadly consistent with the principles of the NDIS Act. The requirements included person-centred practice, rights-based approaches, participation, inclusion and choice. They specifically refer to the disability sector as a context for employment and people with disability as a client group. All include interprofessional practice, although Speech Pathology Australia asserts that transdisciplinary practice is a skill expected after graduation (Speech Pathology Australia, 2009). The language of the accreditation requirements for most professions is not always consistent with that used in the NDIS Act.

The accreditation requirements for physiotherapy and psychology do not explicitly include the disability sector as a context for practice, or people with disability as a client group. The word "disability" does not appear in either document. Some of the principles of the NDIS Act are implicit in accreditation requirements relating to ethical practice and/or understanding work contexts.

Next steps

- The National Disability Insurance Agency (NDIA) to work with Australian Health Practitioner Regulation Agency (AHPRA), the National Alliance of Self Regulating Health Professionals (NASRHP), accrediting bodies and professional associations to ensure that all future iterations of accreditation standards for the registered professions are consistent and aligned with the NDIS Act as well as the UN Convention on the Rights of Persons with Disability and the National Disability Strategy.
- Embedding of the NDIS Act principles in the competencies required of graduates and inclusion of the disability sector as an example of potential contexts for professional practice will raise the visibility of the disability sector with students and better prepare graduates for work in the sector.
- To convey a consistent message to universities, professional bodies, professionals, students and the general public and to embed these messages deeply in practice, it is important that the language used is also consistent with that in the NDIS Act.
- Common underpinning principles and language in the allied health professions will also assist in the development of interprofessional and transdisciplinary practice in all sectors. The Accreditation Standards for Entry Level Occupational Therapy Education Programs (2013) could be used as a model of how to achieve this.

RECOMMENDATIONS

The NDIA to write to allied health accrediting bodies requesting that future iterations of accreditation standards are consistent and aligned with the NDIS Act (2013).

To convey a consistent message to universities, professional bodies, professionals, students and the general public, and to embed these messages deeply in practice, it is important that the language used is also consistent with that used in the NDIS Act.

Common underpinning principles and language in the allied health professions will also assist in the development of interprofessional and transdisciplinary practice in all sectors.

2. Inclusion of disability content in academic learning and teaching

Given the above discussion on accreditation, it is likely that disability is explicitly included in the entry level curricula of social work, occupational therapy and speech pathology curricula. Disability content may be presented in stand-alone subjects or embedded horizontally or vertically within curricula. Anecdotally, it is probably also included in the content of psychology and physiotherapy entry-level courses; it may be included in a more limited way in the context of biomedical/physical issues, mental health or abnormal psychology.

Appendix D lists learning and teaching resources for disability. This is by no means exhaustive, although the items on the list were fairly easy to find and access. Our experience in learning and teaching tells us that a single resource is rarely used in its entirety within a course. Skilled teachers draw on numerous resources to achieve the required learning outcomes and to present material in interesting and engaging ways.

Literature review

The literature on teaching and learning in the area of disability provides some key information about the range of practices that educators engage in, and some low-level evidence about the efficacy of the various practices. A review of health professional education on disability by Shakespeare and Kleine (2013) is a valuable resource. Shakespeare and Kleine reviewed research that evaluated educational interventions to improve knowledge, attitudes and practice in disability. The interventions included:

- conventional lectures or seminars delivered by faculty staff;
- teaching delivered by people with disability or their family members;
- brief encounters with people with disability, advocates or "standardised patients", which involves the use of individuals trained to portray the roles of people with disability, family members or others to facilitate student learning of clinical skills;
- simulation exercises; and
- clinical experience.

They conclude that achieving a holistic understanding of disability requires contact with people with disability in non-clinical settings. This appears to work best when the person with disability is acting as an expert (Balandin & Hines 2011). One-off lectures were the least effective. It appears all students need time to critically reflect on their learning experiences and 'emotional reactions to disability' (Shakespeare & Kleine 2013, p.33). They conclude their review: "It seems clear that learning from success and widespread adoption of good practice is required, if the ambitions of the Convention on the Rights of Persons with Disabilities is to be achieved." (p.34)

Stakeholder views

University teachers

It was felt that currently, good practice in disability learning and teaching is highly dependent on the advocacy of individual lecturers and disability experts driving implementation of innovation. These people not only promote awareness and enthusiasm among students and other teaching staff about key concepts in disability, they also drive application of current research evidence in practice, reflecting both person-centred and strengths-based approaches. Disability theory and concepts tend to be taught predominantly in discrete subjects rather than being embedded throughout curricula. In practical terms, cross-curricular integration of disability concepts is difficult to realise if lecturers or unit coordinators are not from disability-specific backgrounds, or are not 'disability savvy'. Teaching disability solely within specialist subjects may promote a sense of disability being a specialist area of practice, as opposed to the NDIS concept of inclusion of people with disability in mainstream services.

In addition, a major barrier to teaching and learning in disability is that the NDIS and its foundation concepts such as the United Nations Convention on the Rights of Persons with Disabilities and the International Classification of Functioning, Disability, and Health (ICF) require a shift in mindset and understanding of heads of schools and teaching staff, especially if they have less industry experience in disability. University academics reported that those involved in academic curriculum and teaching may believe that they understand

what the NDIS means and the principles underpinning the system, with an attitude of "we are already doing this", but may not in a practical sense understand how the NDIS and principles of the ICF influence service delivery.

There is considerable variation in understanding of the NDIS, including person-directed versus person-centred services, and how allied health supports and service delivery under the NDIS will differ from current practices. It was recommended to us that universities need to develop advisory committees, including people with disability or advocacy groups, to access guidance on curricula and to support the 'mindset shift' of academic and teaching staff. The provision of appropriate resources with tangible examples about current allied health practice under the NDIS, with clear descriptions of how it differs to previous practice, may also facilitate this shift. It is only when teaching staff have the right mindset and clearly understand the principles that they will appropriately use innovative teaching and learning methods for disability. To facilitate this mindset shift and improve understanding, many examples of translation of the principles into practice are required. For example, in occupational therapy, taking a person-centred approach to equipment provision means shifting from prescribing equipment to explaining the pros and cons of various pieces of equipment and allowing the person to decide.

Curriculum

Academics in disability told us that disability content needs to be integrated across allied health curricula to reinforce frameworks and principles that are common across other units of work (eg. as has been described for physiotherapy, Morgan & Lo 2013, and medical students, Tracy & Iacono 2008). This way, students are introduced to disability content across units of study from the start of their courses, as exemplars of people with disability and services they may encounter. This approach reflects a key principle of the NDIS, ie. influencing mainstream non-disability-specific services that will provide services to people with disability. It was felt that the ICF, the World Report on Disability and the Convention on the Rights of People with Disabilities are key frameworks that enable focus on diversity in functioning, allowing disability content to be effectively integrated across allied health curricula. These frameworks also assist in reinforcing the critical 'core' skills, approaches and attitudes required for work in the disability sector. These are person-centred and strengths-based approaches, and the ability to work within a social model of disability, with its attention to how the environment can either facilitate or inhibit opportunities for a person with disability to participate in and contribute to the wider community.

Stakeholders from the non-government disability sector reported that their sector invests much time in upskilling new employees in on-the-job transdisciplinary approaches and family-centred practice. They said that many students emerge from university with a strong understanding of clinical models of practice, but not necessarily in family-centred approaches that incorporate coaching and facilitator roles. These include embedding therapy in everyday routines in everyday settings and play-based intervention. There is debate both in the literature and among professionals over whether skills in transdisciplinary practice are an entry-level competency or to be acquired in the workplace post-graduation. There is therefore a need for research evidence and discussion, both within and between professions, about whether transdisciplinary practice is an entry-level competency or whether in light of its importance to the NDIS, there are opportunities to include this skill in an undergraduate curriculum.

Resources

Appropriate resources and supports need to be accessible to lecturers teaching in non-disability-specific areas of practice to support contextualised student learning about disability. For example, lecturers need to have access to personal narratives and practice examples that can be used across content areas to meet a variety of learning outcomes. Several examples of resources that may fill this need are listed in Appendix D. In addition, resources are needed that provide tangible practice examples of how allied health professionals practise under the NDIS, with its emphasis on client choice and control. Examples from the NDIS trial sites may be an appropriate source of such information. The provision of de-identified participant plans, intervention and support goals and outcome data would support learning and teaching in disability.

3. Examples of innovative approaches and resources for learning and teaching in disability

The following are resources and examples of innovative practice in university learning and teaching. Some resources were identified via web search, others were notified to us by people from the disability services sector, or by academics we consulted. It was apparent that there are good examples of innovative approaches and resources for learning and teaching in disability, but these are piecemeal and not always readily located.

People with disabilities as teachers

Involving people with disability in directly teaching undergraduate speech pathology students is an innovative approach (Balandin & Hines 2011). In response to client feedback, Cerebral Palsy Alliance, as a registered training organisation (RTO), has commenced offering clients basic presentation skills training to facilitate their involvement in the delivery of training.

Disability-specific practice examples

Lectures incorporating practice examples of clinicians working in disability-specific roles would assist students to understand the nature of work in the disability field. Personal narratives and practice examples of client journeys and interventions and the work and role of allied health professionals, would assist the development of an appreciation of careers in disability. The Cerebral Palsy Alliance's Disability Dynamic e-learning course (DD) is an excellent example of case-based innovation.

High-quality audiovisual resources

There are many readily available high-quality audiovisual resources with personal narratives of people with disability (see Appendix D), such as DD, Just Being Kids, and the Health and Disability package from Monash University.

Use of virtual reality

The use of virtual worlds in teaching about lifelong disability is a recent innovation that allows students to experience what it might be like to have a disability (Molka-Danielsen & Balandin, 2011).

Repository of teaching and learning materials

The Centre for Disability Research and Policy, University of Sydney, has commenced an inventory of teaching and learning materials developed by experts in the centre, including (for example) recorded lectures and samples of videos used in teaching and learning. They are considering packaging this as a set of educational e-resources on identified disability topics that could be used by faculty staff needing quick access to specialist resources. This provides a model for fostering innovation and good practice in disability learning and teaching at a faculty level, and potentially across universities offering allied health entry-level programs. The development of a clearing house for dissemination of innovative teaching and learning materials in disability may support the wider availability of quality, peer-reviewed resources relevant to the disability sector.

Although the above resources exist, universities still need to support their take-up by teachers, if not in their entirety, then in sections to reinforce and support delivery of existing curricula and units of work. For example, although DD can be used as an entire course, lecturers at Australian Catholic University are using individual practice examples across various speech pathology units of study including swallowing, hearing impairment, and teaching and learning of interviewing skills. The presentation of these resources within an integrated curriculum framework for allied health education in disability would allow easier take-up and use of the resources.

Knowledge and skills

The NDIS will require people with specific skills and knowledge that should be addressed as part of entry-level allied health university courses. Participants in this project suggested that the following were key knowledge and skill areas for the NDIS:

- **Disability theory and concepts** particularly the mandated principles of the Convention on the Rights of Persons with Disabilities, the foundational theory and concepts in the ICF framework, and the framework and contextual information contained in the World Report on Disability to promote understanding of the demography and population patterns of disability.
- **Indigenous disability and implications for practice** in Australia.

- **Functional, realistic goal-setting and outcome measurement frameworks**, including outcome measurement tools and single case-design methodology. These skills could also be broadened to expose students to how NDIS plans are written and tools that support them to achieve this, reflecting the skills of realistic goal setting, person-centred practice, supported decision-making, and meaningful outcome measurement. Practice examples are needed that demonstrate the process of goal setting for the NDIS and planning, to expose students to this concept before working in the field.
- **Transdisciplinary practice and role delineation**. It is clear that the NDIS Act promotes transdisciplinary practice (Bundy, 2008). Transdisciplinary practice in service delivery has been described as where "team members overlap and cross over traditional roles", with considerable blurring of boundaries between team member roles (Bundy et al 2008). It is characterised by a sharing of responsibility for decision-making by all team members, which includes the person with disability and his or her family as equal partners. However, many stakeholders and professionals in particular believed strongly that transdisciplinary skills could only be developed after graduation in a team. While it was universally agreed that students should gain interprofessional learning experience during their degrees, this was seen as a necessary forerunner to learning transdisciplinary skills. Presently, there is much expert opinion in the literature about both interprofessional learning and transdisciplinary practice, but no evidence to guide decision-making about how students and graduates best learn practical transdisciplinary skills.
- **Delegation and working with allied health assistants**. Stakeholders recognised that allied health professionals may increasingly be involved in working via allied health assistants. Training materials for use by professionals exist (Bell, Beattie & Spitz, 2009) but these are rarely a part of current allied health curricula.
- **Establishing own professional support networks**, including identifying appropriate mentors and sources of support. These skills will be important for sole practitioners working in small non-government organisations or in private practice.

In addition, advanced learning masters in disability could include the following content that will extend the knowledge and skills of graduates working in disability:

- **Insurance perspectives in service delivery**, including the implications of the actuarial processes that underpin the financial modelling in NDIS. Students will need to understand how the insurance perspective changes the nature of service delivery and contrasts to services provision within a health or welfare model. This perspective also means that outcomes need to be understood in terms of cost–benefit. This shift in approach may be particularly difficult or some health professions with a traditional culture of operating within the block-funded social service model rather than adopting a business framework (i.e. social work).
- **Learning of business skills** imperative for effective work within the NDIS, including record management, medico-legal and occupational health and safety issues, and an understanding of risk management.

The other groups that would benefit from access to learning and teaching resources in disability are new graduates who want to "refresh" or extend their learning in disability, graduates entering the disability field for the first time, or graduates encountering people with disability in the context of mainstream services. Orientation to disability work practice needs to be accessible so that clinicians are able to find this information when they are considering working, or starting to work, in disability. Online platforms such as Massive Open Online Courses (MOOCs) could be used to ensure equity of access for new graduate allied health professionals working in disability. The University of NSW's Intellectual disability and mental health (IDMH) e-learning site is an example of presenting this type of information in an accessible way. Similarly, the NSW Department of Family and

Community Services, Ageing, Disability and Home Care (ADHC) developed the Core Standards for Practitioners who Support People with a Disability, designed to focus on the key areas in which practitioners require skills to effectively support people with disability. This includes information on interdisciplinary and transdisciplinary practice. They are accessible at **http://adhc.mediahouseplus.com/**

Leadership

There is a need for leadership in the allied health disability sector in supporting university curriculum and teaching in disability. ADHC's 'Leading Clinical Practice and Supporting Individuals with Complex Support Needs in an NDIS Environment' proposes that the UNSW chairs in mental health and intellectual disability, and behaviour support, may be a model of how such specialist tertiary support could be provided. For example, leadership from allied health professionals in disability in NSW resulted in the identification of skills and knowledge expected by the sector for allied health disability work. ADHC, in collaboration with Cerebral Palsy Alliance, Northcott, and the universities that trained entry-level occupational therapists, physiotherapists and speech pathologists at that time, identified generic knowledge and skills as well as discipline-specific skills and knowledge required of entry-level occupational therapists, physiotherapists and speech pathologists to work effectively in the disability sector. However, such work will need updating to the NDIS context, and could be delivered to include all universities that train entry-level allied health professionals, as well as other stakeholders.

Next steps

- There are examples of innovation in disability learning and teaching, but this is fragmented and there is little evidence of a collective effort to ensure high-quality outcomes for students. The development of a curriculum framework that links generic allied health learning outcomes in disability to readily available resources would be a significant contribution. This type of project could be funded by the Australian Government Office for Learning and Teaching.
- There appears to be much variation in understanding of the realities of how the allied health workforce and their work will change under the NDIS, so current learning, teaching and curricula are not yet reinforcing what will become essential aspects of practice. Accessible resources are needed immediately that depict the NDIS journeys of people with disability and their families, and allied health professionals' roles in the system. The provision of such resources by the NDIA would be much appreciated by the university sector.

RECOMMENDATIONS

University allied health professional preparation programs need to review and update their curricula in the area of disability. Students should be introduced to disability fundamentals such as the ICF framework, the World Report on Disability, and the Convention on the Rights of Persons with Disabilities early on in courses, and these key concepts should be reinforced throughout curricula by embedding disability cases and service contexts. Integration of disability content across allied health curricula will build and develop core disability knowledge, skills and attitudes consistent with the NDIS Act.

Resources should be jointly developed by people with disability, allied health disability practitioners and university staff that can be used in curricula, as well as to orientate, refresh and upskill allied health professionals moving into work and/or working with people with disability. Online learning modules and simulation are ideally suited for this dual purpose.

The NDIA should work jointly with disability organisations and employment and job support agencies to prepare, promote and place people with disability and their carers into fee-for-service relationships with universities. This will facilitate the inclusion of expert teaching in disability by people with disability and their carers in allied health courses. An existing example of this is the ‘Speakers Bureau’ run by the Brain Injury Association of NSW.

There needs to be more research into the effectiveness of different teaching and learning methods in disability, and their relative cost–benefits. Such research could be supported by the NDIA or through the usual competitive grant systems.

4. Clinical education/fieldwork/ practical placements in the disability sector

Everyone we spoke to expressed concern about the ongoing provision of clinical education/fieldwork or practical placements for allied health students under the NDIS. This concern was over how clinical placements would continue in a sustainable way (financially and practically) in the new system, and the potential impact of reduced clinical placements on the future disability workforce. In particular, there was consensus that without models and incentives for, and allied health professionals from, the disability sector to take students – including clear reimbursement rules for student delivered services – there would be no ongoing workforce for disability service providers to recruit.

Conversely, research in Victoria and New South Wales has established providing high-quality placements in the disability sector plays a critical factor in recruiting new graduates to the disability workforce, and in positioning this sector as their preferred employment option (Iacono, Johnson, Humphreys, & McAllister 2007). Thus it is essential that an effective workforce strategy for the allied health disability sector must address how to facilitate sustainable, high-quality clinical placements for students.

The context

Universities are required to supply allied health students with placements offering opportunities to develop their generic and professional competencies to the required levels. Universities work in partnership with the health, education, rehabilitation and disability sectors to place students. Supervision and support of student learning may be provided by on-site supervisors in organisations or from university-employed supervisors. Arrangements and circumstances for placements vary from state to state.

Some organisations in some states require universities to pay for student placements while others do not. There is no credible information on the exact costs, if any, to an organisation, so presently the amounts charged for student placements are entirely arbitrary. This is also in the context of evidence which suggests that students on placement add to organisational capacity and increase productivity in many sectors and organisations. Scott, Jenkins and Buchanan (2014) found in their review that the benefits of taking students on placement fell into six broad categories:

1. Provision of direct clinical services
2. Provision of indirect clinical services
3. Support in meeting the key human resources requirements of the facilities providing the placements
4. Improving the quality, efficiency and retention of professionals engaged in clinical education
5. Innovative practice arising from research relationships or projects initiated by clinical placements
6. Benefits of a systemic nature, especially producing a very skilled workforce which has had its highly transferable skills developed in workplace-based and classroom settings.

Universities fund learning and teaching, including clinical/fieldwork/practical placements from the Australian Government funding they receive for each student and any student fees that are charged. The same amount of funding is received for the delivery of a lectures and tutorials as for placements. Recently Health Workforce Australia (HWA) has injected funds into the placement system to enable expansion of placement opportunities. This was in response to a doubling of the number of university health students since 2005 (Scott, Jenkins & Buchanan,2014). This funding tended to be paid to placement providers as an incentive to increase the number of placements they provided and/or to implement new placement models. Some innovative placement models have been trialled in the disability sector using this funding source, although it is unlikely that the funding will continue beyond that already committed.

Literature review

There is little in the evidence-based literature about clinical education or fieldwork placements in the disability sector for allied health students. Most publications are descriptions of types of placements

rather than empirical studies of efficacy in terms of students' knowledge, skills and attitudes. Typically the literature shows that placements in the disability sector improve students' attitudes and level of comfort in working with people with disability (Karl, McGuigan, Withiam-Leich, Aki & Symons, 2013). Of interest to the present discussion is the consistent finding that placements that involve more than one student placed in an organisation at a time, generally increases productivity in terms of occasions of service of the organisation (Rodger et al, 2011; Dillon et al, 2003; Lekkas et al, 2007). Unfortunately no such studies exist regarding productivity during placements in the disability sector.

There is no current evidence to suggest that one model of clinical education is superior to any other in terms of student learning outcomes (Lekkas et al, 2007). Lekkas and colleagues (2007) systematically examined the outcomes of six different clinical placement models and found that none was superior to another. This paper comments on the advantages and disadvantages in implementation of each model, and is a useful resource when considering setting up allied health placements. Lekkas and colleagues' important conclusions are:

1) "The emergent perspective from the qualitative research was that benefits and efficiencies may occur during the clinical education process, which may offset any perceived burden."
2) "The planning and preparation of clinical education is perceived as critical irrespective of the model of education employed."
3) "The decision regarding which clinical education model(s) to implement rests, therefore, on the careful consideration and interpretation of evidence by stakeholders."

Stakeholder views

As indicated above, this topic generated universal expressions of concern from stakeholders. The following is a list of the potential issues they identified – these are anticipated, as it is not clear what the impact of the NDIS on student placements will be. At this stage most stakeholders are "imagining" what their organisation and service might be like under the NDIS. However, experience tells us that in times of significant change in a sector, the number of student placements generally falls for the following reasons:

1) Staff are distracted and overwhelmed by change.
2) Staff are learning new skills and ways of working, and therefore do not feel they are in a position to teach others.
3) Student placements are not "mandatory", so cutting placements is an easy way of reducing perceived pressure. A sharp reduction in the number of placements in the disability sector for these reasons may have significant consequences for recruitment and retention of graduates.

Importance of placements for recruitment

There was general consensus that clinical placements in disability are essential, and directly influence new graduate recruitment into disability positions (Iacono, Johnson, Humphreys, & McAllister 2007).

Billable hour time pressure may reduce availability of placements

Anecdotally, we received reports of increasing difficulty in arranging placements in the non-government (NGO) sector. NGOs reported that they are still committed to being learning organisations for allied health students, but anticipate they will be less able to do so as the NDIS rolls out. In particular, organisations reported they may need to cap the number of students they can take if clinicians are to maintain the number of billable occasions of service required to maintain their positions. There was a sense that students take allied health professionals away from work with clients, even though the literature does not empirically support this.

The concept of billable hours or NDIS line items for services and supports was discussed by stakeholders. There is a general lack of clarity over whether organisations and private practitioners can charge for student-delivered services, and if they can, under what circumstances, how much can be charged and whether this is separate from charging for the supervising allied health professional. This is unclear across NDIS pricing, Medicare and private health fund rebates. Several stakeholders pointed

out that supervision of students would also need to be charged as well as student-delivered services.

Problematic supervision requirements

Stakeholders described problems with supervision requirements for some allied health professionals. These were generally linked to accreditation requirements. Many small NGOs do not have allied health professionals on staff and so cannot take students on placement because they do not meet the supervision requirements. Similar concerns were raised by NGOs that employ casual, part-time or contracted allied health staff.

Further, there are very few opportunities for clinical placements in disability for psychology students. In psychology, supervisors must have the same masters background (ie. clinical psychology masters students need clinical psychologists as supervisors). In NSW, probably only 10-15 clinical psychologists are available in ADHC to supervise clinical psychology masters students, compared with upwards of 100 psychologists across the state. It may be assumed that psychologists understand behaviours of concern common within disability, but as this is often not part of their training, having the same masters background may be entirely irrelevant to the requirements of the job. Onerous requirements of supervisors may also affect clinicians' capacity to take on multiple students.

Choosing to be seen by a student

Currently, there are no incentives for, nor resources to support, NDIS participants to consent to student involvement in their therapy services. Increasing competition in the NGO sector means that student placements could figure positively or negatively in participants' choice of service providers. It is essential that NDIS participants be given a choice about being seen by students, and the right to refuse without compromising their receipt of a service. Additionally, there needs to be clear reporting, sign-off and monitoring of any student-delivered interventions.

Safety and quality of clinical/fieldwork placements

A need was felt for regulations and safeguards for NDIS participants and students in disability placements, especially those offered by private providers. There is potential for the private sector to be a good source of placements. However, some concerns were reported that private practitioners not being on-site with students could result in considerable risk to NDIS participants and compromise learning opportunities for students. It is the responsibility of universities to monitor the safety and quality of clinical placements and to ensure that regulations and safeguards are in place for people with disability and students on disability placements.

Making use of mainstream experiences in disability

Students can gain work experience in disability through clinical placements in other sectors e.g. hospital, private, and mainstream community service. Consistent with NDIS philosophy around access to mainstream services, NDIS participants may use services in other sectors. However, for students to learn from these opportunities, supervisors outside the disability sector need to be "disability savvy". ADHC has developed resources to support disability awareness across sectors that may assist in making the most of such opportunities.

Interprofessional placements

Creative development of interprofessional placements was also highlighted as important. The way of the future in disability is that professionals will work within diverse teams and seek out discipline-specific support and mentoring from outside that team. Hence placements that "mimic" the realities of this context will build students' skills and knowledge about working this way. Professional bodies, especially for accreditation, may need to be more flexible and develop supervision policies that support interprofessional placements. To ensure competent and safe practice, disciplinary and cross-disciplinary discussion and guidelines are needed on what constitutes reasonable and sufficient supervision in the disability sector.

Examples of innovative models of clinical/fieldwork placements: models of interdisciplinary clinical placements in emerging role areas or in non-clinical roles

Deakin University and the University of the Sunshine Coast have innovative clinical placements for occupational therapy students that, although not primarily focused on promoting disability placements, do address challenges in identifying sufficient numbers of clinical placements. Both models involve placing students in NGOs that do not currently employ occupational therapists, such as those offering day programs for people with disability. Fieldwork educators may not be occupational therapists, but may come from a variety of backgrounds in the disability support field. These placements give students the chance to develop skills and competencies not generally covered in traditional occupational therapy programs, such as consultancy, community development, and project work, as well as skills in autonomous and lifelong learning.

In Deakin University's Occupation, Wellness and Life Satisfaction Program, students attend two different fieldwork sites, two days per week each. The remaining day is spent on campus with direct access to university occupational therapy supervisors who provide learning activities and clinical support. This model was designed to reflect the realities of working part time across different job roles and different sites. Similarly, the program at the University of the Sunshine Coast provides students with support from a university-based occupational therapist who is available remotely via phone or email during the week, and provides tutorials and peer interaction activities designed to facilitate student learning. Under both models, students have strong links to the university, with someone from their own discipline to support them in developing their knowledge and skills to practise competently on graduation.

The NGOs report benefits from occupational therapy student placements. Such interprofessional placements promote greater understanding of occupational therapy, even where there is no occupational therapist on the team. An important role of the university-based clinical supervisor is developing strong working relationships with the NGOs, which assists them in identifying and developing specific opportunities for student involvement. Clinical placements within these models have resulted in some NGOs hiring occupational therapists as permanent members of the team. In addition, NGOs see including student placements as a way of increasing their attractiveness as a service provider. Disability support workers have also reported the value of the professional support provided by students, and the reinforcement that they are "on the right track" in their work. There may be potential to apply similar models to placements for students in early childhood settings, eg. childcare centres.

The success of this model is dependent on the presence of a key person in the organisation (field supervisor) who has the skills to support student learning, even if they are not from the same discipline, and can provide a range of high-quality experiences. Supervision from university staff is essential to ensure competent and safe practice. It should be noted that while "role emerging placements" (Sheepway, Lincoln & Togher, 2011) such as those described above are common and allowable under accreditation requirements in occupational therapy, they are unlikely to be acceptable for other professions, eg. physiotherapy and psychology. However, some discipline-specific supervision is essential to ensure students have the opportunity to develop discipline-specific skills. This is an area ripe for innovation, such as using technology to provide supervision, for example videoconferencing.

Similar types of placements were described as standard practice for social work students. If there is no qualified social worker, someone in the organisation is nominated as 'task supervisor', and an external social work supervisor is contracted by the university to oversee and guide the negotiation and development of learning activities and on-site visits. This role is typically paid for by core funding from the university.

Student placements in allied health private practices

Models of successful allied health student placements in private practice are beginning to emerge, particularly in speech pathology and physiotherapy. The Faculty of Health Sciences at the University of Sydney and Speech Pathology at Flinders University and Macquarie University

reported they were developing and refining student placement models in private practice. Stakeholders said the biggest barriers to setting up such models was the uncertainty as to whether rebates for student services were possible from Medicare, private health insurers and now the NDIS, and the level of supervision required to claim a rebate.

Innovative models are beginning to emerge across a range of disciplines in this sector, and mechanisms for sharing success stories are required. For example, Belinda Hill and Associates (Hill, 2011) regularly accept speech pathology students on placement in their private practice. Speech pathology students participate in group intervention sessions, or consenting clients receive a session from a speech pathology student under direct supervision from a speech pathologist, which is charged for at the normal rate; a second free session from the student later in the week is not supervised. Clients opting to receive services from students value the increased therapy time for their children under this model. The success of such models appears to depend on the ability of supervising speech pathologists to ensure the student's competency level is appropriate for the client, to minimise risk and ensure a safe and high-quality clinical placement for clients and students.

Shared cross-sector placements

ADHC's Clinical Innovation and Governance (CIG), in conjunction with other partners (for example Lifestart), led an initiative that trialled shared placements of University of Sydney allied health students between ADHC and NGOs (for speech pathology students), or with Liverpool Hospital and private practices (for occupational therapy students). A Specialist Placement and Recruitment Unit (SPAR) has been funded in CIG and has produced guides and fact sheets, including information on establishing clear communication channels for supervisors and students. The aim is to link in across the sector, and provide an opportunity for therapists who work part time, as sole practitioners, or work in the private sector to participate in supervision in a more manageable way.

Development of shared and publicly available resources to support placements

ADHC has developed student supervision e-learning modules for allied health professionals, which are **available from their website**. For example, the "Student Supervisor Practice Package" addresses learning needs of allied health professionals in preparing for student supervision.

Simulated learning

There was some enthusiasm from stakeholders for the development of simulated learning scenarios in disability. For example, the physiotherapy simulated learning experience at Sydney University's Faculty of Health Sciences involves students interacting with and treating a hospital inpatient (actor) with Asperger syndrome. While still under development, the work of Balandin and colleagues on virtual world learning, with students moving around and interacting in a virtual world as a person with disability, may be a useful resource in promoting learning about the everyday challenges faced by people with disability. Ideas for other types of simulated learning opportunities include:

- communication with augmented and alternative communication users;
- person/parent/carer interactions, goal setting for people with severe disability; and
- NDIS planning sessions.

Similarly, the Cerebral Palsy Alliance's Disability Dynamic learning system has established learning objectives that have been explicitly linked to speech pathology, occupational therapy and physiotherapy occupational standards or competencies. The rationale was that students could demonstrate clinical competence in disability in some areas, even if they have had no access to a disability placement through completing the learning modules and their various associated learning activities.

Australian Government-funded placements in acute workforce shortages

The Clinical Supervision of Postgraduate Psychologist Trainees Undertaking Placements in Alcohol and Other Drug Services Project ran until June 2011, funded by the Department of Health and Ageing and managed by the Australian Psychological Society. This project paid for consultant psychologists to provide clinical supervision for postgraduate psychology students on placement in non-government alcohol and other drug (AOD) services, as well as incentive payments for AOD services to host placements. There may be the need for such a model for psychology placements in the disability sector.

Disability student units

Novita Children's Services and the Cerebral Palsy Alliance (CPA) received Health Workforce Australia funding to establish centralised student units. The funding allowed Novita to employ a physiotherapist as a clinical supervisor, whose role was dedicated to student learning, including coordination of student placements, identification of students' expectations and learning needs, and orientation of students to the organisation. This supervisor did not necessarily oversee students' direct clinical work, which was undertaken by other physiotherapists within the organisation. Similarly, CPA employed a social worker who fulfilled a similar function for social work and other allied health students. Both organisations report that the employment of a dedicated staff member for student placements freed up other clinicians in the organisation, enhanced the efficiency of the clinical placement model, and also maximised the quality of the student placement, ensuring that students' learning needs were met. Anecdotally, Lifestart has evidence that having more than one student on placement is of value to the participants, as they can have shared learning experiences and there can be time savings for the clinical supervisors, especially if the supervision is shared in a transdisciplinary team.

Placements with NDIS planners

Placements for allied health students with NDIS planners will help students develop knowledge and skills in the NDIS environment. These placements may be particularly relevant for social work and occupational therapy students, although arguably all students would benefit from such experience, particularly as this may be a future career option for allied health students. Student placements could also add capacity to the system, as students could be involved in researching interventions and services for clients, developing plans, developing resources and interacting with participants and families and service providers. Consideration also needs to be given to the readiness of the NDIS planner workforce to take students. Several stakeholders suggested this would be an appropriate innovation in the long term, as planners are themselves presently learning about allied health services.

Additional thoughts from stakeholders

It was suggested that the following incentives need to be provided across the sector to NDIS participants, service providers and universities to address challenges in clinical placements, and to ensure maintenance of a high-quality allied health workforce.

- For NDIS participants: funding needs to provide incentives such as additional or reduced-rate sessions to NDIS participants who consent to receive student-delivered services.
- For service providers who demonstrate innovation and expertise in student learning and placements, incentives may include specific contracts through competitive tender arrangements. Alternatively, current discussions around a case for block funding for certain situations, as argued in the National Disability Services policy paper 'The Case For Some Block Funding in the NDIS' (2013), may be applied to student placement arrangements. In this case, block funding could be used to assist service providers to take on students. Similarly, remuneration for private practitioners may allow them to dedicate time to student learning.
- For universities, incentives to revisit the curriculum and ensure that university learning and teaching produces graduates who are adequately prepared for disability work. Keeping in mind that professions may not require universities to place their students in the disability sector or graduates to demonstrate competence in working with people with disability, there is a risk that if student placements in the disability sector become a commercial concern, universities will simply opt not to place their students in the sector. Ensuring that placements in the disability sector remain "free" for universities is one way of incentivising universities to work with NGOs and private providers to develop and maintain placements for allied health students, while ensuring a skilled and competent allied health workforce is available to support people with disability under the NDIS.

Next steps

- The NDIA and universities to closely monitor the impact on provision of clinical placements for allied health students in the trial sites. No data is presently available to determine whether anecdotal concerns about reduced numbers of placement offers are real.
- Policy to be developed across the NDIS, Medicare and private health insurance that clarifies rebates for student-delivered services, and reasonable and sufficient supervision requirements for students in the disability sector for safe and competent practice. These supervisory requirements need to allow for alternative models to direct one-on-one, line-of-sight supervision.
- Person-centred tools to be identified, developed and disseminated, enabling allied health professionals to negotiate with clients what students can do as part of the service to support participant choice.
- Universities to collaborate to showcase and share knowledge and experience in using innovative placement models in the disability sector.
- The NDIA to partner with a university on development of materials and resources to support student placements with planners. Thought be given to including, or ensuring inclusion of, student supervision skills in the planner role.

RECOMMENDATIONS

Research to be supported through the Australian Competitive Grants Register or another agency that provides a cost–benefit analysis of student placements on a variety of organisations, so evidence-based decisions can be made on the financial implications of student placements.

Research to be supported through the Australian Competitive Grants Register or another agency to develop tools that measure the quality of student placements, to give feedback to universities and funders. Quality measurements should include achievement of student learning and the development of appropriate system-wide knowledge and attitudes.

The NDIA to consider the appropriateness and impact of including student-delivered services in its pricing structure. This would alleviate confusion and potential barriers in the sector to accepting students on placement. Currently it requires an altruistic decision for an NDIS participant to purchase services from students at the same pricing structure as those from experienced clinicians. Alternatively, it was suggested to us that student-delivered services could be billed as allied health assistant services.

Professional associations to provide continuing professional development opportunities, upskilling allied health professionals in mainstream health and education settings. This will capitalise on disability experiences in non-disability sector placements.

5. Good practice in attracting and supporting new graduate allied health professionals

All participants expressed concern over attracting new graduate allied health professionals to the disability workforce, then supporting and retaining them. Students and new graduates were viewed as integral to workforce strategy in the disability sector.

Literature review

The research literature confirms that this is a worldwide issue, particularly in rural and remote areas. It is known that regular, high-quality supervision by experienced allied health professionals and guaranteed access to professional development are influential in both recruitment and retention. Stability of employment, management support and autonomy in clinical practice are also known to support retention in the disability sector.

Cutchin (1997) argues that different factors influence recruitment and retention, partly because the 'decision to remain takes place within the practice setting and arises from the stream of experience there' (p1662). There are no studies of the efficacy of recruitment strategies for allied health professionals in any sector to guide decision making in the current context.

Denham and Shaddock (2004) specifically examined retention of allied health professionals in the disability sector. They found the following affected retention:

- team size, in particular the need for a 'critical mass' of staff;
- management issues;
- unevenly distributed and limited resources;
- the need for regular professional supervision; and
- the disincentive of the flat career structure.

Denham and Shaddock's findings suggest that the size and organisation of the allied health professional workforce in disability may be a challenge to retention under the NDIS.

Lincoln et al (2013) studied the rural and remote allied health disability workforce in NSW. While some of their findings may be unique to the rural and remote context, others may be more generalisable. Theirs is the only other study of recruitment and retention of allied health professionals in the disability workforce. Three major themes relating to recruitment and retention were identified: timely, stable, and flexible recruitment; retention strategies that work; and challenges to retention.

Participants in Lincoln et al (2013) referred frequently to competition between the government-funded agencies of disability, education and health, and NGOs providing disability services. Some employers responded by developing recruitment incentive packages, leading to wide variations in pay and conditions for allied health professionals in the disability sector. Offering favourable pay and conditions was reported to significantly affect recruitment. Participants also reported that tenuous employment arrangements were unattractive to allied health professionals in the disability sector. Slow recruitment processes, "bridging employment arrangements", and short-term and casual contracts had a negative effect on allied health professional recruitment.

Another key finding from Lincoln et al (2013) was that for rural allied health professionals in the disability sector, access to continuing professional development and supervision and mentoring from experienced allied health professionals was perceived to promote retention. They found that larger NGOs sometimes had the capacity to support senior staff to provide supervision and mentoring, but not all NGOs had this capacity. Satisfaction with employment was also linked to access to organisation-funded and supported professional development. New graduates in particular were attracted to and retained in jobs where continuing professional development was guaranteed. The following is a quote from a new graduate participant in Lincoln et al (2013):

"So there's certain training that is mandatory training that all staff need to do and then depending on experience levels and I guess your previous experience, there's a range of other training in the core clinical areas for each discipline and that's a real draw card. And also we have a new graduate package so they receive funding to go to conferences."

Another theme in Lincoln et al was frustration over the inability to meet the needs and expectations of clients. Waiting lists, slow processes, and lack of services were an embarrassment to frontline workers who regularly interact with clients and carers with high levels of need. Participants also reported not implementing "family-centred, evidence-based practice due to policy and workforce constraints--even though they had a strong desire to do so". Onerous management and administration systems reportedly did not promote retention or job satisfaction. We suggest that strong mentoring is needed to help new graduate allied health professionals cope with and adjust to the workplace context, to prevent burnut and disillusionment.

Lincoln et al (2013) conclude that the rural disability allied health professional workforce "may have different issues influencing their recruitment and retention than their colleagues in the health, education, and private sectors". Participants identified that successful recruitment practices were timely, stable, and flexible. They described competition between sectors and organisations to recruit allied health professionals and an abundance of tenuous employment arrangements that were not attractive. This is a new finding that may be unique to the disability sector, since Keane et al. (2012) did not identify these themes in their study of the general rural allied health workforce in NSW.

Common to Keane et al (2012), Denham and Shaddock (2004) and Lincoln et al. (2013) was the negative impact of reduced services and resources. This manifested as embarrassment when communicating with high-needs clients and carers about service provision, and frustration that they were unable to implement the philosophical approaches of family-centred practice and evidence-based practice.

Particular difficulty is likely in recruiting and retaining allied health professionals in the disability sector in rural and remote communities (Chisholm, et al, 2011; Keane, et al, 2013). Chisholm (2011) and Keane (2013) report that the numbers of allied health professionals working in any organisation drops sharply as remoteness increases. It is also more likely that rural and remote people with disability will need to access mainstream services as specialist services are often rare and/or infrequent.

Stakeholders

Perceived exclusivity of disability

One of the key barriers to effective recruitment in disability identified by stakeholders was the presumed "exclusivity" of the disability sector, the belief that clinicians require special skills, special techniques and special propensities to work in the field. It is true that there is a place for use of both generic and specialist clinical skills when working with people with disability, particularly for those with more complex support needs. However, as more NDIS participants access mainstream services and supports and allied health professionals provide competent interventions and supports, the perception of exclusivity may well abate.

Promoting and experiencing positive outcomes for people with disability

It was felt that students were unlikely to see disability as an attractive field to work in, without attention to providing a clear picture of the nature of the work. Assisting students and new graduates to understand that real, functional changes in people's lives are possible may assist in demystifying the disability sector, and improve recruitment and motivation to work with people with disability. Similarly educational experiences that emphasise rights-based approaches, person-centredness and strengths-based approaches will help allied health professionals understand the positive roles available to them in the disability sector. Initiatives such as ProjectABLE, which arranges workshops for high school and university students about careers in the disability and community care sectors, and carecareers, a recruitment site aimed at increasing attraction and retention in the sectors, were highlighted as examples of how this promotion may be achieved.

Support for recruitment

Senior allied health practitioners in the disability sector told us that new graduate allied health professionals wanting to work in disability do not know who to contact or how to find information about employers. Most new graduates are aware only of government-funded services and very large NGOs. Similar concerns were expressed about who would provide guest lectures to students, attend careers fairs and provide senior, experienced input on selection panels, and how these opportunities

would be funded. Stakeholders also identified a need to provide and promote career paths in disability. There is a perceived need to change the narrative from 'these are people who love their work and are caring' to 'these are people with a professional career in this field'.

Supervision of new graduates

Stakeholders identified two major concerns: who would provide supervision for new graduates, and how would it be funded. Concern was expressed that particularly in NSW, experienced allied health professionals were leaving the government-provided disability services and not moving into NGOs or private practices. This drain of expertise was a major concern because they were perceived as needed for supervision and support of new graduates, job and service design, policy development, educational resources development, student supervision, advocacy and expert management of clients with complex needs. Added to this, it was anticipated that the design of the NDIS would result in greater casualisation of the workforce, with professionals increasingly working under contractor arrangements. There were concerns that new graduates working under such arrangements may not have access to the necessary supports of adequate training, supervision and monitoring. Time and funding for supervision for both the supervisor and supervisee was a second concern. It was noted that time spent in supervision was not funded under the NDIS. This concern from stakeholders stemmed from the known relationship between access to supervision, skills development and recruitment and retention of new graduate allied health professionals. No stakeholder put forward a solution to this issue.

Unlike other allied health professionals in psychology, it was reported that more people apply for jobs in the disability sector when they are advertised as temporary positions. If adequate supervision and support is provided and people are able to upskill and develop the right values and attitudes, they are more likely to transition to permanent jobs in the disability field.

Access to continuing professional development

The concerns here were similar to those for supervision: who would provide, resource and fund continuing professional development for allied health professionals. Funding came down to that while allied health professionals were engaging in continuing professional development, they would not be producing billable hours for their employer. On top of that was the cost of travelling to, attending and/or engaging with the development activities. Allied health professionals recognise that continuing professional development is each individual's responsibility and is an investment in their career, so did not expect to be totally supported by their employers. However, it was pointed out that this issue is more acute in rural and remote areas where the cost of attending continuing professional development for allied health professionals is greater. Despite widespread acceptance of the idea of technology-enabled development, eg. online courses, webinars and teleconferences, time away from billable hours remained the major concern. Further, allied health professionals in rural and remote areas often report that attending at least some face-to-face continuing professional development reduces feelings of isolation and helps them build their professional networks.

Examples of innovative models of workforce support and development: Western Australia Country Resource and Consultancy team model (WA Disability Services Commission)

This model was put forward by multiple stakeholders as a potential solution to the looming problems they are anticipating with recruitment and retention of new graduates in the field. In this model, a core group of senior and experienced allied health professionals provide support, supervision and consultation statewide to any allied health professional who requests it. Services are negotiated, prioritised and contracted between the Resource and Consultancy Team and organisations. Members of the team also develop and deliver continuing professional development and carry out direct supervision of allied health professionals and consultation with complex clients. A version of this model has also been proposed in ADHC's paper, 'Leading Clinical Practice and Supporting Individuals with Complex Support Needs in an NDIS Environment'.

Access to senior allied health professionals for new graduates in rural and remote areas could be via technology (videoconferencing, etc). Some

stakeholders believe that hubs of allied health expertise might be best situated within large NGOs so that these allied health professionals are able to maintain client contact and face-to-face contact with other clinicians. Some believe that locating these professionals in an NDIA-funded 'innovation hub' in each state may be most appropriate. Regardless of where senior allied health professionals are situated, they are likely to require a keen understanding of the specific working environments of practitioners they support, particularly for those facing the unique challenges of rural and remote practice. Stakeholders also saw this approach as a way of halting the drain of expertise from the sector and appropriately deploying those with high levels of expertise.

Access and sharing across sectors

Increased sharing across sectors of resources and continuing professional development is required if people with disability accessing mainstream services are to receive quality interventions and supports. Similarly, all new graduates within and outside the disability sector will require access to build knowledge and skills. The HETI Mental Health and Intellectual Disability (UNSW) online module is an excellent example of this approach, and demonstrates how resources could be developed at a national level to address workforce support and development. Similarly, the Positive Partnerships project associated with Helping Children with Autism funding provides web-based learning in autism, and was developed by a consortium involving education and specialist autism organisations.

Postgraduate study well aligned with the NDIS Act

The Masters of Developmental Disabilities at Sydney University's Faculty of Health Sciences is a multidisciplinary advanced learning masters in disability. Students complete core areas of knowledge and skill development and then can select advanced studies in particular areas. Employer support in terms of funding and/or study leave or access to a competitive scholarship program will make this a more attractive option for early-career allied health professionals.

Increased access to continuing professional development via professional associations

The Occupational Therapy Association has online training modules available on autism available free of charge for members, or at cost for non-members. The Australian Psychological Society has the People with Intellectual and/or Developmental Disability and Psychology Interest Group, which runs bi-monthly case presentations with the facility to join via teleconferences, as well as the Deafness and Psychology Interest Group. Services for Australian Rural and Remote Allied Health (SARRAH) provides the Remote and Rural Transition Toolkit, an online resource to support allied health professionals transitioning to rural and remote practice. Organisations such as Australian Group on Severe Communication Impairment (AGOSCI) play a critical role in bringing together new graduate and experienced therapists.

Private provider models

Community Occupational Therapy Associates, a Canadian group of occupational therapists, is a consultancy business that subcontracts work to individual private occupational therapists. The senior associates provide the subcontractors with training and support. As a business model, this allows a consortium of evidence-based practitioners to build over time. Potentially this could be a Disability Enterprise option, so that people with disability could be employed within the business model as consultants or trainers (Goldenberg & Quinn 1985).

Resource development

The following freely available resources were identified as potentially helping organisations support professional development of new graduate allied health professionals. ADHC developed the common core standards package, available online.

The Children's Health Network is developing practice guidelines for 0-18 years. This work originally focused on rural practitioners, who often need to provide services across a wide caseload. However, practice guidelines have now been developed to support disability work across the sector, in recognition that health will now include people with disability within their services. So far a paediatric feeding guide has been made available via this group.

Communities of practice

Communities of practice are informal groups of people bound together by a common enterprise

(Wenger & Snyder, 200). Often their members know what they are doing but have a desire to do it better. Communities of practice can be face to face or virtual, and are one way of providing support to new graduate allied health professionals.

Currently ADHC is mapping communities of practice in disability and identifying any gaps. ADHC staff reported that noticing a drop-off in participation in communities of practice over time from private practice and the non government sector, despite interest and engagement in them. ADHC currently leads and maintains several communities of practice in disability in NSW; however, moving forward, these communities will need to become self sustaining.

Next steps

- The NDIA to carefully monitor recruitment and retention of the allied health workforce across the sector to determine the extent of the problem that stakeholders are predicting. For the registered professions, AHPRA may be able to collaborate for this task, and professional associations for the unregistered professions. Monitoring of positions advertised, vacancy rates and experience levels of allied health professionals in the field will contribute important information to planning. Monitoring of factors such as waiting lists and unmet participant demand will also allow identification the need for new or additional positions to address concerns about demand outstripping supply.
- The NDIA to consider the proposal for supporting an 'expertise and innovation hub' in each state to provide support, supervision and continuing professional development to allied health professionals supporting people with disability.
- The NDIA to consider providing support for establishing, leading and maintaining communities of practice for allied health professionals in disability. This role could be part of the activities of the 'innovation hub' proposed above.
- The NDIA to consider partnering with an employment agency to host a central employment portal for allied health professional positions in the disability sector.
- The NDIA, in partnership with disability service providers, to consider a new graduate allied health professional internship scheme that supports allied health professionals in their first two years of work in the disability sector. The internship would give guaranteed access to professional supervision and CPD.

RECOMMENDATIONS

Successful models of allied health professional employment in NGOs accessing funding via the NDIS to support other NGOs in employment practices, recruitment and retention.

A central, freely accessible repository of resources to be established for allied health professionals working with people with disability.

Research to determine the efficacy and cost effectiveness of allied health workforce recruitment and retention strategies in the disability sector.

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APPENDIX A:

Next steps and recommendations proposed in this report

Good practice in university education in the allied health professions in the area of disability.

REVIEW OF ACCREDITATION REQUIREMENTS FOR ALLIED HEALTH DEGREES	
NEXT STEPS	The NDIA to work with the Australian Health Practitioner Regulation Agency (AHPRA), the National Alliance of Self Regulating Health Professionals (NASRHP), accrediting bodies and professional associations to ensure that all future iterations of accreditation standards for the registered professions are consistent and aligned with the NDIS Act as well as the UN Convention on the Rights of Persons with Disability and the National Disability Strategy. Embedding of the NDIS Act principles in the competencies required of graduates and inclusion of the disability sector as an example of potential contexts for professional practice will raise the visibility of the disability sector with students and better prepare graduates for work in the sector. To convey a consistent message to universities, professional bodies, professionals, students and the general public and to embed these messages deeply in practice, it is important that the language used is also consistent with that in the NDIS Act. Common underpinning principles and language in the allied health professions will also assist in the development of interprofessional and transdisciplinary practice in all sectors. The Accreditation Standards for Entry Level Occupational Therapy Education Programs (2013) could be used as a model of how to achieve this.
RECOMMENDATIONS	The NDIA to write to allied health accrediting bodies requesting that future iterations of accreditation standards are consistent and aligned with the NDIS Act (2013). To convey a consistent message to universities, professional bodies, professionals, students and the general public and to embed these messages deeply in practice, it is important that the language used is also consistent with that used in the NDIS Act. Common underpinning principles and language in the allied health professions will also assist in the development of interprofessional and transdisciplinary practice in all sectors.

EXAMPLES OF INNOVATIVE APPROACHES AND RESOURCES FOR LEARNING AND TEACHING IN DISABILITY	
NEXT STEPS	There are examples of innovation in disability learning and teaching, but this is fragmented and there is little evidence of a collective effort to ensure high-quality outcomes for students. The development of a curriculum framework that links generic allied health learning outcomes in disability to readily available resources would be a significant contribution. This type of project could be funded by the Australian Government Office for Learning and Teaching. There appears to be much variation in understanding of the realities of how the allied health workforce and their work will change under the NDIS, so current learning, teaching and curricula are not yet reinforcing what will become essential aspects of practice. Accessible resources are needed immediately that depict the NDIS journeys of people with disability and their families, and allied health professionals' roles in the system. The provision of such resources by the NDIA would be much appreciated by the university sector.
RECOMMENDATIONS	University allied health professional preparation programs need to review and update their curricula in the area of disability. Students should be introduced to disability fundamentals such as the ICF framework, the World Report on Disability, and the Convention on the Rights of Persons with Disabilities early on in courses, and these key concepts should be reinforced throughout curricula by embedding disability cases and service contexts. Integration of disability content across allied health curricula will build and develop core disability knowledge, skills and attitudes consistent with the NDIS Act. Resources should be jointly developed by people with disability, allied health disability practitioners and university staff that can be used in curricula, as well as to orientate, refresh and upskill allied health professionals moving into work and/or working with people with disability. Online learning modules and simulation are ideally suited for this dual purpose. The NDIA to work jointly with disability organisations and employment and job support agencies to prepare, promote and place people with disability and their carers into fee-for-service relationships with universities. This will facilitate the inclusion of expert teaching in disability by people with disability and their carers in allied health courses. An existing example of this is the 'Speakers Bureau' run by the Brain Injury Association of NSW. There needs to be more research into the effectiveness of different teaching and learning methods in disability, and their relative cost–benefits. Such research could be supported by the NDIA or through the usual competitive grant systems.

CLINICAL EDUCATION/FIELDWORK/PRACTICAL PLACEMENTS IN THE DISABILITY SECTOR	
NEXT STEPS	The NDIA and universities to closely monitor the impact on provision of clinical placements for allied health students in the trial sites. No data is presently available to determine whether anecdotal concerns about reduced numbers of placement offers are real. Policy to be developed across the NDIS, Medicare and private health insurance that clarifies rebates for student-delivered services, and reasonable and sufficient supervision requirements for students in the disability sector for safe and competent practice. These supervisory requirements need to allow for alternative models to direct one-on-one, line-of-sight supervision. Person-centred tools to be identified, developed and disseminated, enabling allied health professionals to negotiate with clients what students can do as part of the service to support participant choice. Universities to collaborate to showcase and share knowledge and experience in using innovative placement models in the disability sector. The NDIA to partner with a university on development of materials and resources to support student placements with planners. Thought be given to including, or ensuring inclusion of, student supervision skills in the planner role.
RECOMMENDATIONS	Research to be supported through the Australian Competitive Grants Register or another agency that provides a cost–benefit analysis of student placements on a variety of organisations, so evidence-based decisions can be made on the financial implications of student placements. Research to be supported through the Australian Competitive Grants Register or another agency to develop tools that measure the quality of student placements, to give feedback to universities and funders. Quality measurements should include achievement of student learning and the development of appropriate system-wide knowledge and attitudes. The NDIA to consider the appropriateness and impact of including student-delivered services in its pricing structure. This would alleviate confusion and potential barriers in the sector to accepting students on placement. Currently it requires an altruistic decision for an NDIS participant to purchase services from students at the same pricing structure as those from experienced clinicians. Alternatively, it was suggested to us that student-delivered services could be billed as allied health assistant services. Professional associations to provide continuing professional development opportunities, upskilling allied health professionals in mainstream health and education settings. This will capitalise on disability experiences in non-disability sector placements.

GOOD PRACTICE IN ATTRACTING AND SUPPORTING NEW GRADUATE ALLIED HEALTH PROFESSIONALS IN THE DISABILITY FIELD	
NEXT STEPS	The NDIA to carefully monitor recruitment and retention of the allied health workforce across the sector to determine the extent of the problem that stakeholders are predicting. For the registered professions, AHPRA may be able to collaborate for this task, and professional associations for the unregistered professions. Monitoring of positions advertised, vacancy rates and experience levels of allied health professionals in the field will contribute important information to planning. Monitoring of factors such as waiting lists and unmet participant demand will also allow identification the need for new or additional positions to address concerns about demand outstripping supply. The NDIA to consider the proposal for supporting an 'expertise and innovation hub' in each state to provide support, supervision and continuing professional development to allied health professionals supporting people with disability. The NDIA to consider providing support for establishing, leading and maintaining communities of practice for allied health professionals in disability. This role could be part of the activities of the 'innovation hub' proposed above. The NDIA to consider partnering with an employment agency to host a central employment portal for allied health professional positions in the disability sector. The NDIA, in partnership with disability service providers, to consider a new graduate allied health professional internship scheme that supports allied health professionals in their first two years of work in the disability sector. The internship would give guaranteed access to professional supervision and CPD.
RECOMMENDATIONS	Successful models of allied health professional employment in NGOs accessing funding via the NDIS to support other NGOs in employment practices, recruitment and retention. A central, freely accessible repository of resources to be established for allied health professionals working with people with disability. Research to determine the efficacy and cost effectiveness of allied health workforce recruitment and retention strategies in the disability sector.

APPENDIX B:

Allied health professional courses offered in Australia

SPEECH PATHOLOGY Speech pathology courses holding accreditation with Speech Pathology Australia **http://www.speechpathologyaustralia.org.au**	
NEW SOUTH WALES	
Charles Sturt University	Bachelor of Health Science (Speech Pathology)
	Master of Speech Pathology (initiated an accreditation evaluation)
Macquarie University	Master of Speech-Language Pathology
University of Newcastle	Bachelor of Speech Pathology
University of Sydney	Bachelor of Applied Science, Speech Pathology
	Master of Speech Language Pathology
Australian Catholic University	Bachelor of Speech Pathology (initiated accreditation evaluation)
QUEENSLAND	
University of Queensland	Bachelor of Speech Pathology
	Master of Speech Pathology Studies
James Cook University	Bachelor of Speech Pathology
Griffith University	Master of Speech Pathology
University of Central Queensland	Bachelor of Speech Pathology (initiated accreditation evaluation)
Australian Catholic University	Bachelor of Speech Pathology (initiated accreditation evaluation)
Southern Cross University	Bachelor of Health Science (Speech Pathology) (initiated an accreditation evaluation)
SOUTH AUSTRALIA	
Flinders University	Bachelor of Speech Pathology
	Master of Speech Pathology

VICTORIA	
La Trobe University	Bachelor of Speech Pathology (Pass and Honours)
	Bachelor of Health Sciences / Masters of Speech Pathology
University of Melbourne	Master of Speech Pathology
Australian Catholic University	Bachelor of Speech Pathology (initiated an accreditation evaluation)
WESTERN AUSTRALIA	
Curtin University of Technology	Bachelor of Science (Speech Pathology)
	Master of Speech Pathology
Edith Cowan University	Bachelor of Speech Pathology
OCCUPATIONAL THERAPY Approved programs of study – Qualifications for registration **http://www.occupationaltherapyboard.gov.au/Accreditation.aspx**	
AUSTRALIAN CAPITAL TERRITORY	
University of Canberra	Master of Occupational Therapy
NEW SOUTH WALES	
Charles Sturt University	Bachelor of Health Science (Occupational Therapy) (Pass & Honours)
	Bachelor of Occupational Therapy (Pass and Honours)
University of Sydney	Bachelor of Applied Science (Occupational Therapy)
	Master of Occupational Therapy (Pass and Honours)
University of Western Sydney	Bachelor of Applied Science (Occupational Therapy) (Pass & Honours)
	Bachelor of Health Science (Pass and Honours) / Master of Occupational Therapy
	Master of Occupational Therapy
University of Newcastle	Bachelor of Health Science (Occupational Therapy)
	Bachelor of Occupational Therapy (Pass and Honours)
Australian Catholic University	Bachelor of Occupational Therapy (Pass and Honours)

QUEENSLAND	
Central Queensland University	Bachelor of Occupational Therapy (Pass and Honours)
Griffith University	Bachelor of Occupational Therapy (Pass and Honours)
James Cook University	Bachelor of Occupational Therapy (Pass and Honours)
Southern Cross University	Bachelor of Occupational Therapy
University of Queensland	Bachelor of Occupational Therapy (Pass and Honours)
	Master of Occupational Therapy Studies
University of the Sunshine Coast	Bachelor of Occupational Therapy
Australian Catholic University	Bachelor of Occupational Therapy (Pass and Honours)
SOUTH AUSTRALIA	
Flinders University	Master of Occupational Therapy
	Bachelor of Health Science/Master of Occupational Therapy
South Australian Institute of Technology	Diploma of Applied Science Occupational Therapy
	Degree conversion to Bachelor of Applied Science Occupational Therapy
	Bachelor of Applied Science Occupational Therapy (Pass & Honours)
University of South Australia	Bachelor of Applied Science (Occupational Therapy) (Pass & Honours)
	Master of Occupational Therapy (Graduate Entry)
VICTORIA	
Deakin University	Bachelor of Occupational Therapy (Pass and Honours)
La Trobe University	Bachelor of Occupational Therapy & Bachelor of Behavioural Sciences
	Bachelor of Occupational Therapy / Bachelor of Ergonomics
	Bachelor of Health Sciences and Master of Occupational Therapy Practice
	Bachelor of Occupational Therapy
	Bachelor of Occupational Therapy (Pass and Honours)/ Bachelor of Psychological Science

VICTORIA – continued	
La Trobe University	Bachelor Psychological Science and Master of Occupational Therapy Practice (Pass and Honours)
	Bachelor of Occupational Therapy/Bachelor of Ergonomics, Safety and Health
	Master of Occupational Therapy Practice
Monash University	Bachelor of Occupational Therapy (Pass and Honours)
Australian Catholic University	Bachelor of Occupational Therapy (Pass and Honours)
WESTERN AUSTRALIA	
Curtin University of Technology	Bachelor of Occupational Therapy
	Bachelor of Science (Occupational Therapy)
	Bachelor of Science (Occupational Therapy)/ Bachelor of Business Administration
	Bachelor of Science (Occupational Therapy) / Bachelor of Education
	Master of Occupational Therapy
Edith Cowan University	Bachelor of Science (Occupational Therapy) (Pass and Honours)
	Master of Occupational Therapy Practice
PHYSIOTHERAPY Programs of study approved by the Physiotherapy Board of Australia **http://www.ahpra.gov.au/Education/Approved-Programs-of-Study.aspx?ref=Physiotherapist**	
AUSTRALIAN CAPITAL TERRITORY	
University of Canberra	Master of Physiotherapy (Graduate Entry)
NEW SOUTH WALES	
Charles Sturt University	Bachelor of Physiotherapy (Pass and Honours)
University of Newcastle	Bachelor of Physiotherapy
University of Sydney	Bachelor of Applied Science (Physiotherapy)
	Master of Physiotherapy (Graduate Entry)

NEW SOUTH WALES – continued	
University of Western Sydney	Bachelor of Health Science (Honours)/Master of Physiotherapy
	Bachelor of Health Science/Master of Physiotherapy
	Master of Physiotherapy
QUEENSLAND	
Australian Catholic University	Bachelor of Physiotherapy (Pass and Honours)
Bond University	Doctor of Physiotherapy
Griffith University	Master of Physiotherapy
James Cook University	Bachelor of Physiotherapy
University of Queensland	Bachelor of Physiotherapy
	Master of Physiotherapy Studies
SOUTH AUSTRALIA	
Flinders University	Master of Physiotherapy
University of South Australia	Bachelor of Physiotherapy
	Master of Physiotherapy (Graduate Entry)
VICTORIA	
La Trobe University	Bachelor of Health Science/Master of Physiotherapy Practice (Pass and Honours)
	Master of Physiotherapy Practice (Pass and Honours)
Monash University	Bachelor of Physiotherapy
University of Melbourne	Doctor of Physiotherapy
WESTERN AUSTRALIA	
Curtin University	Bachelor of Sciences (Physiotherapy)
	Master of Physiotherapy (Graduate Entry)
University of Notre Dame Australia	Bachelor of Physiotherapy

PSYCHOLOGY Australian Psychology Accreditation Council (APAC) approved programs of study **http://www.psychologyboard.gov.au/Accreditation.aspx**	
AUSTRALIAN CAPITAL TERRITORY	
Australian National University	Bachelor of Arts (Pass and Honours)
	Bachelor of Science (Psychology)
	Bachelor of Science (Pass and Honours)
	Graduate Diploma in Psychological Studies
	Bachelor of Philosophy (Honours)
	Bachelor of Psychology (Honours)
	Bachelor of Science (Psychology Honours)
	Master of Clinical Psychology
	Doctor of Philosophy (Clinical Psychology)
	Doctor of Psychology (Clinical)
University of Canberra	Bachelor of Arts/Bachelor of Science in Psychology
	Bachelor of Arts/Bachelor of Science in Psychology
	Bachelor of Science in Psychology/Bachelor of Coaching Science
	Bachelor of Science in Psychology/Bachelor of Laws
	Graduate Diploma in Psychological Science
	Bachelor of Science in Psychology (Pass and Honours)
	Postgraduate Diploma in Psychology
	Doctor of Philosophy in Clinical Psychology
	Master of Clinical Psychology
NEW SOUTH WALES	
Australian Catholic University	Bachelor of Arts (Psychology)
	Bachelor of Psychological Science
	Graduate Diploma in Psychology

NEW SOUTH WALES – continued	
Australian College of Applied Psychology	Graduate Diploma of Psychological Science
	Graduate Diploma of Psychology
	Graduate Diploma of Professional Psychology
Charles Sturt University	Bachelor of Social Science (Psychology) (Pass and Honours)
	Bachelor of Social Science (Psychology)/Bachelor of Business (with specialisations)
	Graduate Diploma of Psychology
	Bachelor of Psychology (Pass and Honours)
	Postgraduate Diploma of Psychology
	Bachelor of Arts (Honours) (Psychology)
Macquarie University	Bachelor of Arts - Psychology/Diploma of Education
	Bachelor of Arts – Psychology (Pass and Honours)
	Bachelor of Arts - Psychology/Bachelor of Health
	Bachelor of Arts - Psychology/Bachelor of Laws
	Bachelor of Business Administration/Bachelor of Arts - Psychology
	Bachelor of Science - Psychology/Bachelor of Health
	Bachelor of Science – Psychology (Pass and Honours)
	Bachelor of Psychology (Honours)
	Postgraduate Diploma of Professional Psychology
	Doctor of Philosophy/Master of Clinical Neuropsychology
	Doctor of Philosophy/Master of Clinical Psychology
	Doctor of Philosophy/Master of Psychology (Organisational)
	Master of Clinical Neuropsychology
	Master of Clinical Psychology
	Master of Organisational Psychology
	Doctor of Clinical Neuropsychology
	Doctor of Clinical Psychology
	Doctor of Organisational Psychology

NEW SOUTH WALES – continued	
Southern Cross University	Bachelor of Clinical Sciences (Psychology)
	Bachelor of Psychological Science (Pass and Honours)
	Graduate Diploma of Psychology
	Bachelor of Psychology (Pass and Honours)
	Postgraduate Diploma of Psychology
University of New England	Bachelor of Arts
	Bachelor of Arts/Bachelor of Business
	Bachelor of Arts/Bachelor of Laws
	Bachelor of Arts/Bachelor of Science
	Bachelor of Social Science
	Bachelor of Psychological Science
	Bachelor of Science
	Graduate Diploma in Psychology
	Bachelor of Psychology with Honours
	Bachelor of Arts with Honours (Psychology)
	Bachelor of Science with Honours (Psychology)
	Postgraduate Diploma in Psychology
	Bachelor of Social Science with Honours (Psychology)
	Doctor of Philosophy (Clinical)
	Master of Psychology (Clinical)
University of New South Wales	Bachelor of Science (Pass and Honours)
	Bachelor of Science/Bachelor of Arts
	Bachelor of Science/Bachelor of Commerce
	Bachelor of Science/Bachelor of Laws
	Bachelor of Science/Bachelor of Social Science
	Bachelor of Psychological Science (Pass and Honours)
	Bachelor of Science (International)

NEW SOUTH WALES – continued	
University of New South Wales – continued	Bachelor of Psychology
	Bachelor of Science (Advanced Science)
	Bachelor of Science (Advanced Science)/Bachelor of Arts
	Bachelor of Science (Advanced Science)/Bachelor of Social Science
	Doctor of Philosophy/Master of Psychology (Clinical)
	Doctor of Philosophy/Master of Psychology (Forensic)
	Doctor of Philosophy/Master of Psychology (Organisational)
	Master of Psychology (Clinical)
	Master of Psychology (Forensic)
	Master of Psychology (Organisational)
University of Newcastle	Bachelor of Psychological Science
	Bachelor of Psychology
	Bachelor of Arts (Honours)
	Bachelor of Science (Honours)
	Bachelor of Social Science (Honours)
	Graduate Diploma in Psychology (Postgraduate)
	Master of Clinical Psychology
	Doctor of Clinical and Health Psychology
	Doctor of Clinical Psychology
	Doctor of Philosophy (Clinical Psychology)
University of Sydney	Bachelor of Arts (Pass and Honours)
	Bachelor of Commerce (Liberal Studies) (Pass and Honours)
	Bachelor of Health Sciences (Pass and Honours)
	Bachelor of Liberal Arts and Science (Pass and Honours)
	Bachelor of Science(Pass and Honours)
	Bachelor of Science (Advanced) (Pass and Honours)
	Bachelor of Science and Technology

NEW SOUTH WALES – continued	
University of Sydney – continued	Bachelor of Medical Science (Pass and Honours)
	Bachelor of Science (Pass and Honours)/Master of Nursing
	Bachelor of Science (Pass and Honours)/Bachelor of Arts
	Bachelor of Science (Pass and Honours)/Master of Nutrition and Dietetics
	Bachelor of Science (Pass and Honours)/Bachelor of Laws
	Bachelor of Engineering/Bachelor of Science (Pass and Honours)
	Bachelor of Information Technology/Bachelor of Medical Science (Pass and Honours)
	Bachelor of Information Technology/Bachelor of Science (Pass and Honours)
	Bachelor of Engineering/Bachelor of Medical Science (Pass and Honours)
	Bachelor of Commerce/Bachelor of Science (Pass and Honours)
	Bachelor of Medical Science (Pass and Honours)/Bachelor of Medicine and Bachelor of Surgery
	Bachelor of Science (Advanced) (Pass and Honours)/Bachelor of Medicine and Bachelor of Surgery
	Graduate Diploma in Psychology
	Bachelor of Psychology
	Doctor of Clinical Psychology/Doctor of Philosophy
	Doctor of Clinical Psychology/Master of Science
University of Western Sydney	Bachelor of Arts (12 unit sequence)
	Graduate Diploma of Psychological Studies
	Bachelor of Psychology (Pass and Honours)
	Bachelor of Psychology (Honours)
	Postgraduate Diploma of Psychology
	Master of Psychology (Clinical Psychology)

NEW SOUTH WALES – continued	
University of Wollongong	Bachelor of Arts (Psychology) (Pass and Honours)
	Bachelor of Psychology (Honours)
	Bachelor of Science (Psychology) (Pass and Honours)
	Postgraduate Diploma in Psychology
	Graduate Diploma of Professional Psychology
	Doctor of Philosophy (Clinical)
	Master of Psychology (Clinical)
	Doctor of Psychology (Clinical)
QUEENSLAND	
Australian Catholic University	Bachelor of Arts (Psychology)
	Bachelor of Psychological Science
	Graduate Diploma in Psychology
	Postgraduate Diploma in Psychology
	Postgraduate Diploma in Professional Psychology
	Bachelor of Psychological Science (Honours)
	Master of Psychology (Clinical)
	Master of Psychology (Clinical)/Doctor of Philosophy
Australian Institute of Psychology	Bachelor of Psychological Science
Bond University	Bachelor of Social Science (Psychology) (Pass and Honours)
	Postgraduate Diploma of Psychology
	Master of Psychology (Clinical)
	Master of Psychology (Forensic)
Central Queensland University	Bachelor of Arts (Psychology)
	Bachelor of Science (Psychology)
	Graduate Diploma of Psychological Science
	Bachelor of Psychology (Pass and Honours)
	Graduate Diploma of Psychology

QUEENSLAND – continued	
Central Queensland University – continued	Bachelor of Arts (Honours)
	Master of Clinical Psychology
Griffith University	Bachelor of Business (Human Resource Management)/Bachelor of Psychological Science
	Bachelor of Business/Bachelor of Psychological Science
	Bachelor of Exercise Science/Bachelor of Psychological Science
	Bachelor of Laws/Bachelor of Psychological Science
	Bachelor of Psychological Science (Pass and Honours)
	Bachelor of Psychological Science/Bachelor of Criminology and Criminal Studies
	Bachelor of Psychology (Honours)
	Doctor of Philosophy in Clinical Psychology
	Doctor of Philosophy in Organisational Psychology
	Master of Clinical Psychology
	Master of Organisational Psychology
	Doctor of Psychology (Clinical)
	Doctor of Psychology (Organisational)
James Cook University	Bachelor of Arts (Psychology)
	Bachelor of Business/Bachelor of Psychology (Pass and Honours)
	Bachelor of Psychology (Pass and Honours)
	Postgraduate Diploma of Psychology
	Bachelor of Arts (Psychology) (Pass and Honours)
	Master of Psychology (Clinical)
	Master of Psychology (Forensic)
	Doctor of Psychology (Clinical and Forensic)
	Doctor of Psychology (Clinical Geropsychology)
	Doctor of Psychology (Clinical)
	Doctor of Psychology (Forensic)

QUEENSLAND – continued	
James Cook University – continued	Bachelor of Psychology (Pass and Honours)
	Postgraduate Diploma of Psychology
	Master of Psychology (Clinical)
	Doctor of Psychology (Clinical)
Queensland University of Technology	Bachelor of Exercise and Movement Science/Bachelor of Behavioural Science (Psychology)
	Bachelor of Applied Science (in Human Movement Studies)/Bachelor of Behavioural Science (Psychology)
	Bachelor of Arts/Bachelor of Behavioural Science (Psychology)
	Bachelor of Behavioural Science (Psychology) (Pass and Honours)
	Bachelor of Justice/Bachelor of Behavioural Science (Psychology)
	Bachelor of Behavioural Science (Psychology)/Bachelor of Business
	Bachelor of Behavioural Science (Psychology)/Bachelor of Laws
	Bachelor of Behavioural Science (Psychology)/Bachelor of Social Work
	Bachelor of Nursing/Bachelor of Behavioural Science (Psychology)
	Graduate Diploma in Psychology
	Postgraduate Diploma in Psychology
	Bachelor of Behavioural Science (Honours)
	Master of Clinical Psychology
	Master of Psychology (Educational and Developmental)
	Doctor of Psychology (Clinical)
University of Queensland	Bachelor of Arts (with an extended major in Psychology)
	Bachelor of Behavioural Science
	Bachelor of Science (with an extended major in Psychology)
	Bachelor of Psychological Science (Pass and Honours)
	Bachelor of Arts (Honours)
	Bachelor of Science (Honours)
	Master of Applied Psychology in the the field of Counselling

QUEENSLAND – continued	
University of Queensland – continued	Master of Applied Psychology in the field of Health
	Master of Applied Psychology in the field of Sport and Exercise
	Master of Clinical Psychology
	Master of Clinical Psychology/Doctor of Philosophy
	Master of Organisational Psychology
	Master of Organisational Psychology/Doctor of Philosophy
	Doctor of Psychology in the field of Clinical Geropsychology and Clinical Psychology
	Doctor of Psychology in the field of Clinical Neuropsychology and Clinical Psychology
	Doctor of Psychology in the field of Clinical Psychology and Health Psychology
	Doctor of Psychology in the field of Clinical Psychology
University of the Sunshine Coast	Bachelor of Arts
	Bachelor of Arts (Psychology)/Bachelor of Business (Human Resource Management)
	Bachelor of Arts (Psychology)/Bachelor of Science (Exercise Science)
	Bachelor of Social Science (Psychology) (Pass and Honours)
	Master of Psychology (Clinical)
University of Southern Queensland	Bachelor of Arts / Bachelor of Science (Psychology)
	Bachelor of Science (Psychology)
	Graduate Diploma of Psychological Studies
	Bachelor of Psychology (Honours)
	Bachelor of Science (Honours)
	Postgraduate Diploma of Professional Psychology
	Master of Psychology (Clinical)
	Doctor of Psychology (Clinical)

SOUTH AUSTRALIA	
Flinders University	Bachelor of Behavioural Science (Psychology)
	Bachelor of Arts (Pass and Honours)
	Bachelor of Behavioural Science (Psychology) / Bachelor of Arts
	Bachelor of Laws and Legal Practice/Bachelor of Behavioural Science (Psychology)
	Bachelor of Psychological Science (Pass and Honours)
	Bachelor of Science (Animal Behaviour) / Bachelor of Behavioural Science (Psychology)
	Graduate Diploma in Psychology
	Bachelor of Psychology (Honours)
	Bachelor of Behavioural Science (Honours)
	Bachelor of Science (Honours)
	Doctor of Philosophy (Clinical Psychology)
	Master of Psychology (Clinical)
	Bachelor of Psychological Science (Pass and Honours)
University of Adelaide	Bachelor of Arts
	Bachelor of Commerce
	Bachelor of Health Sciences (Pass and Honours)
	Bachelor of Psychological Science
	Bachelor of Science
	Bachelor of Social Sciences
	Graduate Diploma in Psychological Science
	Bachelor of Psychology (Honours)
	Master of Clinical Psychology (Defence)
	Master of Psychology (Clinical)
	Master of Psychology (Health)
	Master of Psychology (Organisational & Human Factors)
	PhD/Master of Psychology (Clinical)

SOUTH AUSTRALIA – continued	
University of Adelaide – continued	PhD/Master of Psychology (Health)
	PhD/Master of Psychology (Organisational & Human Factors)
VICTORIA	
Australian Catholic University	Bachelor of Arts (Psychology)
	Bachelor of Psychological Science
	Graduate Diploma in Psychology
	Postgraduate Diploma in Psychology
	Bachelor of Psychological Science (Honours)
	Master of Psychology (Clinical)
	Master of Psychology (Clinical)/Doctor of Philosophy
	Master of Psychology (Educational and Developmental)
	Master of Psychology (Educational and Developmental)/Doctor of Philosophy
Australian College of Applied Psychology	Bachelor of Psychological Science (Pass and Honours)
	Graduate Diploma of Psychological Science
	Graduate Diploma of Psychology
Cairnmillar Institute	Graduate Diploma of Psychology
	Graduate Diploma of Professional Psychology
	Master of Psychology (Clinical)
Deakin University	Bachelor of Arts (Psychology 'the 10 unit sequence')
	Bachelor of Arts/Bachelor of Health Sciences (Psychology 'the 10 unit sequence')
	Bachelor of Health Sciences (Psychology 'the 10 unit sequence')
	Bachelor of Management
	Bachelor of Science (Psychology 'the 10 unit sequence')
	Bachelor of Criminology/Bachelor of Psychological Science
	Bachelor of Psychological Science (Pass and Honours)
	Bachelor of Nursing/Bachelor of Psychological Science

VICTORIA – continued	
Deakin University – continued	Graduate Diploma of Psychological Science
	Bachelor of Psychology (Honours)
	Bachelor of Arts (Psychology)(Honours)
	Graduate Diploma of Psychology
	Master of Psychology (Clinical)
	Doctor of Psychology (Clinical)
	Doctor of Psychology (Forensic)
	Doctor of Psychology (Health)
La Trobe University	Bachelor of Psychological Science (Pass and Honours)
	Postgraduate Diploma in Psychology
	Master of Clinical Neuropsychology
	Master of Clinical Psychology
	Master of Counselling Psychology
	Doctor of Clinical Neuropsychology (Research)
	Doctor of Clinical Psychology (Research)
	Doctor of Counselling Psychology (Research)
	Doctor of Psychology in Clinical Neuropsychology
	Doctor of Psychology in Clinical Psychology
	Doctor of Psychology in Counselling Psychology (Coursework)
Monash University	Bachelor of Arts (Pass and Honours)
	Bachelor of Arts (Psychology)
	Bachelor of Arts (Criminal Justice)
	Bachelor of Arts (Global)
	Bachelor of Arts (International)
	Bachelor of Arts (Journalism)
	Bachelor of Arts (Professional Communication)
	Bachelor of Arts (Social Science)

VICTORIA – continued	
Monash University – continued	Bachelor of Arts and Social Sciences
	Bachelor of Behavioural Neuroscience
	Bachelor of Behavioural Science
	Bachelor of Business (Psychology)
	Bachelor of Nursing (Psychological Studies)
	Bachelor of Psychological Science
	Bachelor of Science (Pass and Honours)
	Bachelor of Communication
	Bachelor of Professional Communication
	Bachelor of Journalism
	Graduate Diploma in Psychology
	Bachelor of Psychology (with Honours)
	Bachelor of Behavioural Neuroscience (with Honours) (Psychology)
	Bachelor of Psychological Science and Business (Pass and Honours)
	Postgraduate Diploma of Psychology
	Master of Psychology (Counselling)
	Master of Psychology (Counselling)/Doctor of Philosophy
	Master of Psychology (Educational & Developmental)
	Master of Psychology (Educational & Developmental)/Doctor of Philosophy
	Doctor of Psychology in Clinical Neuropsychology
	Doctor of Psychology in Clinical Psychology
	Doctor of Psychology in Clinical Psychology (Forensic Psychology)
RMIT University	Bachelor of Arts (Criminology and Psychology)
	Bachelor of Applied Science (Psychology) (Pass and Honours)
	Bachelor of Social Science (Psychology)
	Bachelor of Social Work/Bachelor of Social Science (Psychology)
	Graduate Diploma in Behavioural Science

VICTORIA – continued	
RMIT University – continued	Bachelor of Psychology (Honours)
	Graduate Diploma in Psychology
	Master of Psychology
Swinburne University	Bachelor of Arts (Psychology and Psychophysiology)
	Bachelor of Arts (Psychology)
	Bachelor of Arts (Psychology and Forensic Science)
	Bachelor of Arts (Psychology and Sport Science)
	Bachelor of Business
	Bachelor of Business/Bachelor of Social Science
	Bachelor of Health Science
	Bachelor of Health Science (Psychology)
	Bachelor of Science (Psychology and Biochemistry)
	Bachelor of Science (Psychology and Psychophysiology)
	Bachelor of Science (Psychology)
	Bachelor of Social Science
	Bachelor of Social Science (Psychology and Forensic Science)
	Bachelor of Social Science (Psychology and Sport Science)
	Graduate Diploma of Psychology
	Graduate Diploma of Social Science (Psychological Studies)
	Postgraduate Diploma of Psychology
	Bachelor of Arts (Honours)
	Bachelor of Science (Honours)
	Master of Psychology (Clinical Psychology)
	Master of Psychology (Counselling Psychology)
	Doctor of Philosophy (Clinical Psychology)
	Professional Doctorate of Psychology (Clinical Psychology)
	Professional Doctorate of Psychology (Counselling Psychology)

VICTORIA – continued	
Swinburne University – continued	Bachelor of Social Science (Psychology)
	Bachelor of Social Science (Criminology and Forensic Science)
	Bachelor of Behavioural Studies (Psychology)
University of Ballarat	Bachelor of Arts (Humanities and Social Sciences)
	Bachelor of Arts (Rural Social Welfare)
	Bachelor of Psychological Science
	Bachelor of Health Sciences
	Bachelor of Arts (Psychology) (Honours)
	Master of Psychology (Clinical)
	Doctor of Psychology (Clinical)
University of Melbourne	Bachelor of Arts (Pass and Honours)
	Bachelor of Commerce
	Bachelor of Science
	Graduate Diploma in Psychology
	Bachelor of Science (Honours)
	Postgraduate Diploma in Psychology
	Master of Educational Psychology
	Master of Educational Psychology/Doctor of Philosophy
	Master of Psychology (Clinical)
	Master of Psychology (Clinical Neuropsychology)
	Master of Psychology (Clinical Neuropsychology)/Doctor of Philosophy
	Master of Psychology (Clinical)/Doctor of Philosophy
	Doctor of Educational Psychology
	Master of Psychology (Clinical)
Victoria University	Bachelor of Arts
	Bachelor of Arts (Honours) Psychology
	Bachelor of Business (Marketing)/Bachelor of Psychological Studies

VICTORIA – continued	
Victoria University – continued	Bachelor of Exercise Science and Human Movement/Bachelor of Psychological Studies
	Bachelor of International Studies/Bachelor of Psychological Studies
	Bachelor of Psychological Studies (Pass and Honours)
	Bachelor of Psychological Studies (Interpersonal and Organisational)
	Bachelor of Psychological Studies/Bachelor of Business (Human Resource Management)
	Bachelor of Science (Psychology) (Pass and Honours)
	Bachelor of Science/Bachelor of Psychological Studies
	Graduate Diploma in Psychological Studies
	Graduate Diploma in Psychology
	Master of Applied Psychology (Community Psychology)
	Master of Applied Psychology (Community Psychology)/Doctor of Philosophy
	Master of Applied Psychology (Sport Psychology)
	Master of Psychology (Clinical Psychology)
	Master of Psychology (Clinical Psychology)/Doctor of Philosophy
	Doctor of Applied Psychology (Community Psychology)
	Doctor of Applied Psychology (Sport Psychology)
	Doctor of Psychology (Clinical Psychology)
WESTERN AUSTRALIA	
Curtin University	Bachelor of Science (Psychology)
	Bachelor of Science (Psychology)/Bachelor of Commerce (Human Resource Management & Industrial Relations
	Bachelor of Psychology (Pass and Honours)
	Doctor of Philosophy (Clinical)
	Doctor of Philosophy (Counselling)
	Master of Psychology (Clinical)
	Master of Psychology (Counselling)

WESTERN AUSTRALIA – continued	
Edith Cowan University	Bachelor of Arts (Psychology and Addiction Studies)
	Bachelor of Arts (Psychology and Counselling)
	Bachelor of Arts (Psychology) (Pass and Honours)
	Bachelor of Arts (Psychology, Criminology and Justice)
	Bachelor of Business/Bachelor of Arts (Psychology)
	Bachelor of Laws/Bachelor of Psychological Science
	Bachelor of Psychological Science
	Bachelor of Science (Psychology) (Pass and Honours)
	Postgraduate Diploma in Psychology
	Doctor of Philosophy (Forensic)
	Master of Psychology (Clinical Psychology)
	Doctor of Philosophy (Clinical)
	Doctor of Psychology (Clinical/Forensic Psychology)
	Graduate Certificate in Forensic Psychology
Murdoch University	Bachelor of Arts in Psychology (Pass and Honours)
	Bachelor of Psychology (Pass and Honours)
	Bachelor of Psychology
	Postgraduate Diploma in Psychology
	Master of Applied Psychology in Clinical Psychology
	Master of Applied Psychology in Clinical Psychology/Doctor of Philosophy
	Master of Applied Psychology in Organisational Psychology
	Master of Applied Psychology in Organisational Psychology/Doctor of Philosophy
	Doctor of Psychology in Clinical Psychology
	Doctor of Psychology in Organisational Psychology
	Bachelor of Arts (Psychology)
	Bachelor of Arts (in Psychology and Human Resource Management)

WESTERN AUSTRALIA – continued	
Murdoch University – continued	Bachelor of Arts (in Psychology and Management)
	Bachelor of Arts (in Psychology and Marketing Management)
	Bachelor of Arts (in Psychology and Communications & Media Studies)
University of Western Australia	Bachelor of Arts (Pass and Honours)
	Bachelor of Science (Pass and Honours)
	Diploma in Science (Psychology)
	Bachelor of Philosophy (Honours)
	Master of Clinical Psychology
	Master of Clinical Neuropsychology
	Master of Clinical Psychology (extended)
	Master of Industrial & Organisational Psychology
	Doctor of Philosophy and Master of Clinical Psychology
	Doctor of Philosophy and Master of Clinical Neuropsychology
	Doctor of Philosophy and Master of Industrial and Organisational Psychology
	Graduate Diploma in Clinical Psychology (Post-masters bridging)
	Graduate Diploma in Clinical Neuropsychology (Post-masters bridging)
NORTHERN TERRITORY	
Charles Darwin University	Bachelor of Psychological Science (Pass and Honours)
	Graduate Diploma in Psychology
	Master of Psychology (Clinical)
TASMANIA	
University of Tasmania	Bachelor of Arts (12 unit sequence of study in psychology)
	Bachelor of Science (12 unit sequence of study in psychology)
	Bachelor of Arts and Bachelor of Business (12 unit sequence of study in psychology)
	Bachelor of Arts and Bachelor of Laws (12 unit sequence of study in psychology)

TASMANIA – continued	
University of Tasmania – continued	Bachelor of Arts and Bachelor of Science (12 unit sequence of study in psychology)
	Bachelor of Behavioural Science (12 unit sequence of study in psychology)
	Graduate Diploma of Science (12 unit sequence of study in psychology)
	Bachelor of Psychology (Pass and Honours)
	Bachelor of Arts with Honours
	Bachelor of Science with Honours
	Bachelor of Behavioural Science with Honours
	Doctor of Philosophy (Clinical)
	Master of Psychology (Clinical)
	Doctor of Psychology (Clinical)

PSYCHOLOGY
Social Work courses in Australian universities giving eligibility for membership of the Australian Association of Social Workers (AASW)
http://www.aasw.asn.au/careers-study/accredited-courses

AUSTRALIAN CAPITAL TERRITORY	
Australian Catholic University	Bachelor of Social Work (Pass and Honours)
	Bachelor of Theology/Bachelor of Social Work
	Bachelor of Arts(ANU)/Bachelor of Social Work
	Bachelor of Arts/Bachelor of Social Work
	Master of Social Work (Qualifying)
NEW SOUTH WALES	
Charles Sturt University	Bachelor of Social Work
	Bachelor of Arts (Pass and Honours)/Bachelor of Social Work (Pass and Honours)
	Master of Social Work (Qualifying)
University of New England	Bachelor of Social Work
	Master of Social Work (Qualifying)

NEW SOUTH WALES	
University of New South Wales	Bachelor of Social Work
	Bachelor of Social Work/Bachelor of Law
	Bachelor of Social Work/Bachelor of Arts
	Bachelor of Social Work/Bachelor of Social Science
University of Newcastle	Bachelor of Social Work
University of Sydney	Bachelor of Social Work
	Bachelor of Arts/Bachelor of Social Work
	Master of Social Work (Qualifying)
University of Western Sydney	Bachelor of Social Work
Australian Catholic University	Bachelor of Social Work
	Bachelor of Theology/Bachelor of Social Work
	Bachelor of Arts/Bachelor of Social Work
	Master of Social Work (Qualifying))
QUEENSLAND	
Central Queensland University	Bachelor of Social Work
Griffith University	Bachelor of Social Work
	Master of Social Work (Qualifying)
James Cook University	Bachelor of Social Work
	Bachelor of Arts/Bachelor of Social Work
	Master of Social Work (Qualifying)
Queensland University of Technology	Bachelor of Social Work
	Bachelor of Behavioural Science (Psychology)/Bachelor of Social Work
	Master of Social Work (Qualifying)
Southern Cross University	Master of Social Work (Qualifying)
University of Queensland	Bachelor of Social Work
	Bachelor of Social Work/Bachelor of Arts

QUEENSLAND – continued	
University of Queensland	Bachelor of Social Science/Bachelor of Social Work
	Master of Social Work Studies
University of the Sunshine Coast	Bachelor of Social Work
	Master of Social Work (Qualifying)
Australian Catholic University	Bachelor of Social Work
	Bachelor of Theology/Bachelor of Social Work
	Bachelor of Arts/Bachelor of Social Work
	Master of Social Work (Qualifying)
SOUTH AUSTRALIA	
Flinders University	Bachelor of Social Work and Social Planning
	Master of Social Work (Qualifying)
University of South Australia	Bachelor of Social Work
	Bachelor of Social Work/Bachelor of Arts (International Studies)
	Bachelor of Social Work/Bachelor of Arts (Aboriginal Studies)
	Master of Social Work (Qualifying)
VICTORIA	
Deakin University	Bachelor of Social Work (1994)
	Bachelor of Social Work (Honours) (1994)
	Master of Social Work (Qualifying) - (2009)
La Trobe University	Master of Social Work (Graduate Entry)
	Bachelor of Human Services / Master of Social Work
Monash University	Bachelor of Social Work (Pass and Honours)
	Bachelor of Social Work/Bachelor of Health Sciences
	Bachelor of Social Work/Bachelor of Arts
	Master of Social Work (Qualifying)

VICTORIA – continued	
RMIT University	Bachelor of Social Work (Honours)
	Bachelor of Social Work/Bachelor of Social Science (Psychology)
	Master of Social Work (Qualifying)
University of Melbourne	Master of Social Work (Qualifying)
Victoria University	Bachelor of Social Work
WESTERN AUSTRALIA	
Curtin University of Technology	Bachelor of Social Work
Edith Cowan University	Bachelor of Social Work (Pass and Honours)
University of Western Australia	Bachelor of Social Work
	Master of Social Work (Qualifying)
NORTHERN TERRITORY	
Charles Darwin University	Bachelor of Social Work
TASMANIA	
University of Tasmania	Bachelor of Social Work (Pass and Honours)
	Master of Social Work (Qualifying)

APPENDIX C:

Accreditation requirements

Information accessed via **http://www.ahpra.gov.au/** Australian Health Practitioners Regulation Authority. Relevant parts of the accreditation standards have been included in column 1 and 2.

PROFESSION	ACADEMIC CONTENT	PRACTICAL EXPERIENCE	COMMENTS
Psychology **http://www.psychologyboard.gov.au/Accreditation.aspx**	**Undergraduate** **Graduate Attribute 1: Core knowledge and understanding** Acquire an understanding of core topics in the discipline, including: abnormal psychology, biological bases of behavior cognition, information processing and language, individual differences in capacity and behaviour, testing and assessment, and personality, learning, lifespan developmental psychology, motivation and emotion perception, social psychology, history and philosophy of psychology, intercultural diversity and Indigenous psychology **Postgraduate** Overall knowledge of the discipline underpins all of the other capabilities and includes knowledge of psychological principles, professional ethics and standards, theories of individual and systemic functioning and change, dysfunctional behaviour, psychopathology, the cultural bases of behaviour and organisational systems.	Practical placements must provide students with experience and skill development in a range of settings. Placements must include casework which involves face-to-face work with clients (individuals, groups or organisations as appropriate to the course). Face-to face work is defined as real time verbal communication in the presence of client(s) in the room with the trainee or interacting with the trainee by means of videoconference technology where there is a real time image of the each of the parties, including a clear view of facial expressions. While casework with clients by means of other electronic media or use of simulation is permissible, face-to-face casework must never be less than 66% of the total casework undertaken as part of the course. There must be at least three different practical placements in different settings, with at least two of these being external to the AOU offering the course.	No specific inclusion or requirement regarding the disability sector or people with disability. Principles in the NDIS Act are not embedded in the standards except in the broadest terms of ethical practice and understanding and working within systems.

PROFESSION	ACADEMIC CONTENT	PRACTICAL EXPERIENCE	COMMENTS
Physiotherapy **http://www.physiocouncil.com.au/accreditation/APCAccreditationGuide15052014.pdf**	No specific disability content required. "The curriculum is structured to include lectures, tutorials, practical classes, and clinical education experiences that are sequenced and integrated to ensure effective learning, and include: the sciences fundamental to physiotherapy including the biomedical sciences of cell biology, anatomy, physiology (including comprehensive exercise physiology), pathology, the physical sciences including biomechanics, and behavioural sciences including psychology, sociology and public health the practice of physiotherapy including, but not limited to, assessment, diagnosis, interpretation, planning, interventions, measurement of outcomes, and reflection on practice; and aspects of broader professional practice including, but not limited to, professional ethics and legal responsibilities, leadership, administration, education, consultation, and collaborative health care provision". P 39 Key areas of physiotherapy refer to musculoskeletal physiotherapy, neurological physiotherapy, cardiorespiratory physiotherapy, and electrophysical agents across all ages and from acute to community contexts.	Placements in the disability sector not required but are possible. "Clinical education program includes clinical education placements that provide opportunities to develop competence in the key areas of physiotherapy with exposure to a range of settings (acute, rehabilitation and community) and to clients of all ages".	No specific requirements in relation to academic content or practical experience in disability. However the accreditation standards are broad and this content is often included. Some students complete placements in the disability sector. Principles in the NDIS Act are not embedded in the standards except in the broadest terms of ethical practice.

PROFESSION	ACADEMIC CONTENT	PRACTICAL EXPERIENCE	COMMENTS
Occupational Therapy **http://www.occupationaltherapyboard.gov.au/**	The program has a documented philosophy which includes a client centered, occupational view of people (relevant to individuals, groups, communities and populations), the challenges they face and how to enable health, wellbeing and participation through occupation. The philosophy and purpose of the program reflect current and predicted health and welfare needs, occupations, systems and priorities of the Australian population including Aboriginal and Torres Strait Islander peoples and the local geographical region in which the program is conducted. The curriculum content reflects current and future emerging practice areas of Australian occupational therapists. The educational methods support the development of graduates to work as effective members of inter- professional teams.	Students experience practice education requiring them to integrate knowledge, skills and attitudes to practise with people with different needs, in varying circumstances. The range of experiences always includes: • people of different age groups; • people who have recently acquired and people who have long-standing health needs; • interventions that focus on the person, the occupation, and the environment. • experience in the provision of culturally responsive health care. Fieldwork experiences will also encompass all of the following parameters: • a range of personal factors such as gender, ethnicity that reflects the recipients of occupational therapy; • individual, community/ group and population approaches; • conditions affecting body structure and function that cause activity limitations; • different delivery systems such as hospital and community, public and private, health and educational, urban and rural, and local and international.	Working in disability sector and people with disability are included in the accreditation documentation. Content and practical experience is not specifically required, however it is implicit in the curriculum content. Many of the accreditation standards are consistent with the principles in the NDIS Act 2013.

PROFESSION	ACADEMIC CONTENT	PRACTICAL EXPERIENCE	COMMENTS
Speech Pathology **http://www.speechpathologyaustralia.org.au/library/Core_Assoc_Doc/CBOS_for_Speech_Pathologists_2011.pdf**	Outcomes based approach to accreditation. University programs must demonstrate that students are assessed against the Competency Based Occupational Standards – Entry Level ICF is identified as a professional framework	An entry-level speech pathologist in Australia must be able to demonstrate competence in any unit of CBOS in paediatric and adult speech pathology practice with both developmental and acquired disorders in the areas of: • language • speech • swallowing • voice • fluency • multi-modal communication	Working in disability sector and people with disability are included in the accreditation documentation. Specific content and experience in multimodal communication is required (sign, AAC). Many of the accreditation standards are consistent with the principles in the NDIS Act 2013.
Social Work	Social work relies on knowledge, skills and commitment of core values, ideals and beliefs. These values derive from the profession's commitment to the pursuit of social justice, the enhancement of the quality of life and the development of the full potential of each individual, family, group and community in society. This means that social work education encourages students to become committed to these values and ideals.	Students should have the opportunity to gain an understanding and appreciation of the experience of individuals, groups and communities within a range of different fields of practice, settings, client groups and geographical locations. It is expected the following areas will be addressed; Aboriginal and Torres Strait Islander cultures; mental health; child care and child safety; ageing; income security; health; disability; cultural and linguistic diversity; rural and remote locations; correctional services and justice; and education.	Working in disability sector and people with disability are included in the accreditation documentation. Content and practical experience is not specifically required, however it is implicit in the curriculum content. Many of the accreditation standards are consistent with the principles in the NDIS Act, 2013.

APPENDIX D:

Examples of available learning and teaching resources

AUTHOR AND/ OR PUBLISHER	TITLE	ACCESSIBILITY	COMMENTS
Colorado Department of Education	Just Being Kids	Videos freely available for download for use in professional development activities **http://www.cde.state.co.us/resultsmatter/rmvideoseries_justbeingkids**	A collection of six video clips that illustrate recommended practices in early intervention. Focuses on working collaboratively with families to achieve meaningful outcomes for children in everyday routines, activities, and places.
Cerebral Palsy Alliance	Disability Dynamic	Access available for purchase for individuals, organisations, and universities **https://dq.org.au/**	Online, self-paced learning modules on disability designed to support allied health students & professionals. The online learning portal provides access to real-life stories, videos, and resources that can be used by students, university learning contexts, & in workplace learning opportunities.
Early Childhood Intervention Inclusion	The Key Worker Online Course	Access available for purchase **http://ecii.org.au/event/the-key-worker-online-course/**	18 Week online interactive course for Early Childhood Intervention Professionals on the Key Worker/ family liaison part of Early Childhood Intervention professionals' roles. Learning is facilitated via reading materials, DVDs, participation in online discussions, quizzes, trying new things out in practice and reflecting upon these experiences.
NSW Ageing, Disability and Home Care (ADHC)	Disability sector's expectations of entry level therapists	Freely available **https://www.adhc.nsw.gov.au/__data/assets/file/0009/238239/Disability_Sectors_Expectations_of_Entry_Level_Therapists.pdf**	Developed to facilitate universities' understanding of the disability sector's knowledge & skill requirements of the entry level therapist working in the disability sector. Identifies the disability sector knowledge and skills, generic therapy knowledge and skills, and discipline specific (occupational therapy, speech pathology, and physiotherapy) knowledge and skills expected of entry level therapists working in the disability sector.

AUTHOR AND/ OR PUBLISHER	TITLE	ACCESSIBILITY	COMMENTS
Early Childhood Intervention Australia- NSW Chapter	Focus on Early Childhood Inclusion project	Freely available **http://www.ecia-nsw.org.au/projects/focus-on-inclusion-project**	The project aims to strengthen service capabilities in supporting children 0-8 within the community, through sector leadership and guidance. The project has three components: (a) an ECI network that provides peer support for developing best practice inclusion service delivery, (b) an Inclusion Tool to assist services in identifying and reviewing inclusive practice strengths and needs, and includes a best practice guide, a self-reflection tool for practitioners, and a family feedback form, and (c) a Transition to School package which provides resources and training aimed to support the transition to school process.
Lifestart	Oi – Online Inclusion	**www.oi.org.au/**	A digital disability hub for information, resources & collaboration designed to ensure finding information about disability is easy, accurate and accessible. The Online Inclusion "Oi" portal offers structured and informal online support for people with disability, families or carers, including access to resources, education & peer support. For allied health professionals, there are opportunities to connect with peers & access training & education via webinars, online modules, simulations, static resources and videos. To be launched 28 July 2014.
Novita Children's Services	Disability – Our Stories	Freely available **www.disabilitystories.org.au**	A multimedia web-based e-learning resource designed for undergraduate & postgraduate students, or for use in workplace orientation & continuing education. Four modules utilise videos of children and young people with disability & their families, interactive diagrams, & questions to facilitate self reflection. Includes assessments at the end of each module, and a certificate following completion.

AUTHOR AND/ OR PUBLISHER	TITLE	ACCESSIBILITY	COMMENTS
NSW Ageing, Disability and Home Care (ADHC)	Student supervisor practice package	Freely available **http://www.adhc.nsw.gov.au/__data/assets/file/0004/296698/Student_Supervisor_Practice_Package.pdf**	Developed to support student supervisors who supervise students on clinical placement within ADHC. Designed to promote consistent and efficient best practice and assist student supervisors to better understand their roles and responsibilities when supervising a student within ADHC, and in the disability sector.
The University of New South Wales, in partnership with ADHC, NSW Health and the Health Education and Training Institute	Intellectual disability and mental health (IDMH) e-learning	Freely available **http://www.idhealtheducation.edu.au/**	An interactive, online education resource for learning in intellectual disability mental health. Designed for health practitioners, however, may be used by students that have a keen interest in this area or will be working with people who have an intellectual disability and mental health disorder during clinical placements. Includes eight modules which utilise videos, resources, learning activities, and opportunities for self reflection. Provides a module for the delivery of training and professional development opportunities to students and new graduate clinicians.
NSW Child Health Network Allied Health Educators	Allied Health Clinical Practice Guidelines	In development **http://www.nchn.org.au/a2k/cpg/index.htm**	Four Clinical Practice Guidelines are in development by the NSW Child Health Network Allied Health Educators with allied health professionals from across NSW. The Guidelines will focus on cerebral palsy, congenital talipes equinovarus, paediatric feeding, and plagiocephaly.
Queensland Health	Deafness and Mental Health: Guidelines for Working with People who are Deaf or Hard of Hearing ISBN 0 7345 2994 5	Freely available **http://www.health.qld.gov.au/metrosouthmentalhealth/deafness/guidelines.asp**	Designed to support practitioners to provide accessible and inclusive services to people who are deaf or hard of hearing, with a particular focus on accessing the mental health system. Contains information, tips and recommendations, and links to additional resources and professional development.

AUTHOR AND/ OR PUBLISHER	TITLE	ACCESSIBILITY	COMMENTS
NSW Ageing, Disability and Home Care (ADHC)	Disability awareness resource – For students on clinical placement	Freely available **http://www.adhc.nsw.gov.au/__data/assets/file/0011/296624/Disability_awareness_resource.pdf**	Developed to provide clinical supervisors with resources to facilitate students' learning whilst on placement in the area of disability awareness. Draws on a range of resources, including "Disability – Our Stories", "Health and Disability – Partnerships in Action", and "Intellectual disability and mental health (IDMH) e-learning". Contains links to documents, ADHC intranet sites and external internet sites.
Monash University	Health and Disability – Partnerships in Action	Available for purchase **http://www.cddh.monash.org/assets/documents/parnership-in-action-order-form-2013.pdf** Evaluation studies: Iacono et al (2011) Tracy, Williams et al (2008)	Focuses on healthcare issues relevant to people with developmental disabilities, and the importance of interprofessional practice. Package contains 6-DVD based video stories focusing on the personal story of someone with disability, a student workbook containing synopses and the learning activities for all six stories, a tutor guide with sample responses for each of the learning activities, and the Knowledge Base textbook.
University of Queensland	Foundations for Social Work Practice in Disability (SWSP3076): elective for social work students.	Program flyer **http://www.uq.edu.au/swahs/studentinfo/Program%20Flyers/SWSP3076%20flyer%20FINAL%2029.07.2011.pdf**	This unit of study is a model for provision of flexible university learning and teaching in disability. The elective is offered in flexible/ distance mode and uses web based and print material. Four seminars are offered on campus and are recorded online for students on rural and international placements. Enrolment in this unit can be timed to coincide with clinical placements.
Health Workforce Australia	Inventory of innovation	**http://www.hwainventory.net.au/**	Provides a model of how to showcase health workforce initiatives being implemented across Australia to build capacity, boost productivity and improve the distribution of health professionals.

AUTHOR AND/ OR PUBLISHER	TITLE	ACCESSIBILITY	COMMENTS
Disability Services Commission, Western Australia	Country Resource and Consultancy Team	**http://www.disability.wa.gov.au/disability-service-providers-/for-disability-service-providers/for-health-professionals/rural-and-remote/country-resource-and-consultancy-team/**	A model for the provision of specialist disability expertise to generalist allied health therapists. The Country Resource and Consultancy team (CRCT) is a multidisciplinary team of allied health professionals that provides training, consultancy and continuing education to therapists in country areas to support their ongoing professional development and competence in working with people with disability.
Dementia Training Study Centres	Various learning modules	Freely accessible **http://elearning.dtsc.com.au/**	Offer a range of online training modules covering topics such as diagnosis, treatment, younger onset dementia, and therapeutic communication. Designed for health professionals & students who provide care for people living with dementia.
NSW Health	Assessment and Management of People with Behavioural and Psychological Symptoms of Dementia (BPSD): A Handbook for NSW Health Clinicians	Freely accessible **https://www.ranzcp.org/Files/Publications/A-Handbook-for-NSW-Health-Clinicians-BPSD_June13_W.aspx**	The Handbook is intended to be a practical handbook reference for NSW Health staff working in settings where they will care for people with dementia and BPSD. Includes information on key principles of care, clinical vignettes and links to additional resources.
Royal Institute for Deaf and Blind Children (RIDBC)	Online learning programs	Some are freely accessible, other courses require payment and registration **http://www.ridbc.org.au/renwick/online-learning**	The RIDBC Renwick Centre offer a range of CPD via e-learning programs, including interactive lectures, audio and video resources, downloads, forums and quizzes. Courses include Vision Impairment Basics, Auditory System and Hearing Impairment, RIBDC Auslan Tutor, Assessment in Vision, Audiology Masterclass, Classroom Acoustics, Assessment and Goal Setting for Children with Remedial Speech Problems, and others.

AUTHOR AND/ OR PUBLISHER	TITLE	ACCESSIBILITY	COMMENTS
Disability Services Commission, Western Australia	Country Resource and Consultancy Team	**http://www.disability.wa.gov.au/disability-service-providers-/for-disability-service-providers/for-health-professionals/rural-and-remote/country-resource-and-consultancy-team/**	A model for the provision of specialist disability expertise to generalist allied health therapists. The Country Resource and Consultancy team (CRCT) is a multidisciplinary team of allied health professionals that provides training, consultancy and continuing education to therapists in country areas to support their ongoing professional development and competence in working with people with disability.
World Health Organization (WHO)	World Health Organization. How to use the ICF: A practical manual for using the International Classification of Functioning, Disability, and Health (ICF). Exposure draft for comment. October 2013. Geneva: WHO	Practical Manual. Freely available **http://www.who.int/classifications/drafticfpracticalmanual.pdf**	The Practical Manual provides guidance on how to apply the ICF concepts and framework in practice, including in education of health professionals and in clinical settings.
Roger J Stancliffe, Nathan J Wilson, Nicolette Gambin, Christine Bigby & Susan Balandin	Transition to retirement: a guide to inclusive practice Sydney University Press ISBN: 9781743 323274	Purchase from; **https://sup-estore.sydney.edu.au/jspcart/Search.do?searchTitle=transition+to+retirement&searchAuthor**	Book and DVD that promote a socially inclusive approach to retirement for people with intellectual impairment.
National Disability Insurance Agency (NDIA)	Examples of services and supports	Available at: **http://www.ndis.gov.au/people-disability/examples-services-and-support**	A collection of videos of people with disability and their carers explaining the services and supports that are available to them through the NDIS.


National Disability Services