

Final Report:

Scoping and gap analysis of undergraduate resources in intellectual disability health

Prepared for the Department of Health



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1. ID Scoping and Gap Analysis_Literature Review
2. ID Scoping and Gap Analysis_List of Stakeholders
3. ID Scoping and Gap Analysis_Learning Resources
4. ID Scoping and Gap Analysis_Desktop Scoping University Courses
5. ID Scoping and Gap Analysis_Gap Analysis Matrix

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Authors

Fran Boyle, Julie Dean, Nam Tran, Aditi Lohan, Natalie Thomas, Tuhin Biswas, Caroline Salom, Institute for Social Science Research, The University of Queensland.

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Acronyms and abbreviations

Acronym/abbreviation	Definition
AHPRA	Australian Health Practitioner Registration Agency
CPD	Continuing Professional Development
3DN	Department of Developmental Disability Neuropsychiatry
ISSR	Institute for Social Science Research
MOOC	Massive Open Online Course
NDIS	National Disability Insurance Scheme
QCIDD	Queensland Centre for Intellectual and Developmental Disability
RDM	Research Data Management
TAC	Tertiary Admission Centre
UQ	The University of Queensland

1. Executive Summary

People with intellectual disability face serious health inequities. Among the identified actions to address these inequities, the Australian Government's *National Roadmap for Improving the Health of People with Intellectual Disability* prioritises the development of education to equip health professionals to deliver quality care for people with intellectual disability. Undergraduate or pre-registration education is vital to the development of necessary knowledge, skills and attitudes.

This scoping and gap analysis contributes to the broader implementation of the Curriculum Development project, including providing a situational analysis of current pre-registration education modules, resources, and curricula content in intellectual disability health in Australia and key recommendations to inform the development of an Intellectual Disability Health Capability Framework (the Framework) and associated supporting resources and tools.

The specific objectives of the project were to:

- Identify current undergraduate intellectual disability health learning modules, resources, and curricula content
- Undertake a gap analysis of learning modules and resources, by health profession
- Provide advice and recommendations on learning modules and resources that should be developed to contribute to delivering the broader aims of the intellectual disability curriculum development Budget measure.

Multiple methods were used to gather information including:

- Rapid review of published literature to identify examples of current approaches and best practice principles
- Desktop research to identify intellectual disability health learning modules available outside of the university setting but potentially adaptable for pre-registration health care professions students and undergraduate and pre-registration courses that contain content on intellectual disability health
- Consultation with a large and diverse group of stakeholders from university, health professional and disability sectors to gain additional information about existing resources, opportunities, gaps and priorities.

Overall Findings

The overall picture is one of limited presence of intellectual disability health across most disciplines and a fragmented approach that is largely reliant on individual interest or champions. However, alongside gaps there are traces of content, often hidden within programs and courses, and areas of strength, innovation and best practice.

Stakeholders widely agreed that improved undergraduate education in intellectual disability health was an important step to better health outcomes for this population group and identified content that is well aligned with the elements of the Framework.

Our scoping activities identified a multitude of resources that might be leveraged to support the implementation of the Framework. These include guidance and resources that can be adopted by universities to enable their curricula to prepare graduates with the key capabilities required to provide the highest quality care to people with intellectual disability.

Actionable recommendations

Communication and promotion of the Framework is an overarching priority.

- A set of tools that complement the Framework and support its implementation should be developed and disseminated widely. This should be done in consultation with stakeholders to ensure key issues are addressed in a comprehensive and implementable way.
- Examples of high quality educational resources that align with the Framework, including those that can be used off the shelf and those that can be adapted to specific discipline contexts should be collated and made available via an online resources hub.
- A self-assessment tool should be developed for use by individual educators or at wider university level to reflect on current course offerings against the Framework elements.

A strong foundation for stakeholder engagement already exists and further engagement efforts are likely to be well-received and beneficial to the development and dissemination of teaching innovation in intellectual disability health.

- Broaden and extend stakeholder networks and engagement processes and consider the establishment of a community of practice to share experiences and learning.
- Strategically target program leaders by discipline to capture intellectual disability health content that may be hidden or where significant gaps exist.

Experiential learning and genuine participation of people with lived experience of intellectual disability needs to be front and centre of undergraduate curriculum development and delivery. Patient involvement in health professional education can build confidence and communication skills and reduce stigma and negative stereotypes but this widely embraced ideal can be challenging to implement in practice.

- Priority should be given to developing clear guidance about the role of patient educator and how this role can be articulated, formalised, and embedded in ways that are beneficial to patients, students, and university program providers.
- Examples of good practice that are identified in this report offer a strong basis for the development of this guidance.

Interprofessional education is a precursor to intersectoral and interprofessional practice and all are vitally important to improving health care for people with intellectual disability.

- Emphasis should be placed on resources that extend beyond discipline-specific technical knowledge and skill.
- Resources that incorporate multiple frameworks and models of intellectual disability health should be made available to promote common understandings across health disciplines, the “joining up” of content, and awareness of the importance of cross-disciplinary care for most people with intellectual disability.

Options for placements should be expanded to include alternative non-traditional community options. While providing important opportunities for students and awareness of the range of settings in which care may occur, this may also help to address the reduced availability of clinical placements and opportunities for direct clinical contact.

- Establish clear guidance to support mutually beneficial relationships with placement sites, including the organisation, management and supervision of placements.
- Consider the compilation of a database that includes information about potential placement sites.

Mechanisms for supporting university staff to implement best practice intellectual disability health content are important.

- Opportunities to build capacity exist and should be explored further. Examples include CPD and information sharing in partnership with professional organisations and disability peak bodies and the harnessing of existing expertise through dedicated intellectual disability health research centres.
- Any recommended training initiative must be implementable and able to be tailored to local contexts. Guidance for implementation is needed along with sharing of successes and innovations. Pragmatic issues such as crowded curricula need to be addressed innovatively; resourcing and practicalities around mechanisms for payment are crucial; and processes to enable sharing of resources and good practice between universities will assist with sustainability.

Evaluation of immediate and longer term-outcomes should be part of the implementation of educational initiatives to monitor their uptake and assess changes over time, including the impact of health care professions training on health outcomes for people with intellectual disability.

2. Introduction

People with intellectual disability have complex health care needs. Significant barriers to appropriate and timely health care mean that their health concerns are not adequately addressed, leading to significant inequalities across a wide range of health outcomes. They and their family, carers, support workers and advocates frequently report negative interactions with the health system and stigma, negative attitudes, and limited understanding are common experiences. The *Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability* (DRC, 2020) heard evidence that health professionals lack the knowledge, skills and appropriate attitudes required to address the health needs of people with intellectual disability.

Health care professionals often feel unprepared and poorly equipped to provide care for people with intellectual disability. This is not surprising considering published studies from Australia (Furst and Salvador-Carulla, 2019; Trollor et al., 2020) and elsewhere (Doebrich et al., 2020; Salvador-Carulla et al., 2015) that suggest most students entering health professions are likely to graduate with little or no training in the needs of people with intellectual disability and that the type and amount of training is often highly dependent on where students completed their studies.

Importantly, however, evidence suggests that once equipped with the necessary knowledge and communication skills, many health professionals feel increasingly positive and confident as they develop their ability to provide care for people with intellectual disability (Smith et al., 2020). Equally important, exposure to intellectual disability content including a clinical placement opportunity, has been associated with a greater likelihood of later working in the context of intellectual disability (Cashin et al., 2021).

This scoping and gap analysis set out to identify gaps where resources are needed in undergraduate health professions education and to identify resources that might be leveraged to address those gaps. The specific focus is on improving the health care of people with intellectual disability *by improving the knowledge, communication, and attitudes of health care professionals in their pre-registration university education*.

There are multiple educational pathways across the health professions including undergraduate or graduate entry university programs. For the purposes of this project, the term undergraduate training refers to pre-registration university health professions programs that lead to an entry-level qualification, registration with the Australian Health Practitioner Regulation Agency (AHPRA) and/or other professional accreditation and a role that involves direct patient contact. The term is used broadly to also include pre-registration graduate entry programs where a prior undergraduate degree is a requirement for program applicants.

This report presents our findings to provide a detailed snapshot of the current state of undergraduate curricula relevant to intellectual disability and health in Australia and draws on multiple information sources to consider implications and recommendations for the development of resources to support the integration of core intellectual disability capabilities in university curricula.

2.1 Project Context

Improving health outcomes for people with intellectual disability is an important priority for the Australian health system. The health inequities experienced by people with intellectual disability and the barriers they face in receiving care that meets their needs are well-documented. Avoidable deaths, emergency department presentations and hospital admissions, and many physical and mental health conditions occur at significantly higher rates when compared with the general

population and access to preventive health care measures is significantly lower (Trollor and Small, 2019).

The *National Roadmap for Improving the Health of People with Intellectual Disability* (Australian Government Department of Health, 2021) sets out actions that are designed to address these health inequities. One of the key objectives of the Roadmap is to support health professionals to better provide quality care that meets the needs of people with intellectual disability. In response to known training gaps in intellectual disability and health, the Roadmap prioritises the development of intellectual disability health capabilities, resources, and tools to improve the health care of people with intellectual disability by improving the knowledge, communication, and attitudes of health care professionals through their pre-registration education. The Curriculum Development project was funded through the 2021-22 Federal Budget, as a key short-term action under the Roadmap to achieve this objective.

As an initial activity under the Curriculum Development project, the Australian Department of Health (the Department) commissioned the Institute for Social Science Research at The University of Queensland (ISSR-UQ) to undertake a scoping and gap analysis of current undergraduate learning modules, resources, and curricula content in intellectual disability health in Australia. The project involved a combination of desktop research and targeted consultation and took place between 01 March-30 June 2022.

This scoping and gap analysis contributes to the broader implementation of the Curriculum Development project, including providing a situational analysis of current pre-registration education modules, resources, and curricula content in intellectual disability health in Australia and key recommendations to inform the development of an *Intellectual Disability Health Capability Framework* (the Framework) and associated supporting resources and tools.

The Framework will be designed to support universities to integrate intellectual disability health care principles into their current curricula. It will provide guidance and resources that can be adopted by universities to enable their curricula to prepare graduates with the key capabilities required to provide the highest quality care to people with intellectual disability throughout their future health professional careers. It is anticipated that capabilities will broadly be developed under the core areas defined in Box 1. The Framework is expected to be completed in the second half of 2023.

Box 1: Intellectual Disability Health Capability Framework Elements

Intellectual Disability Health Capability Areas

1. Understanding the health of people with intellectual disability
 - a. Knowledge of the health status and determinants of health in people with intellectual disability
 - b. Foundational knowledge of causes of intellectual disability, associated medical conditions and common comorbidities
 - c. Understanding and applying evidence-based practice in health care of people with intellectual disability
2. Communication
 - a. Appropriate language, including person-first language and identity-first language when preferred
 - b. Communication style and adaptation
 - c. Assistive communication technology and resources
 - d. Appropriate knowledge of and referral to communication specialists
 - e. Understanding of behaviour change as a form of communication for the purpose of assessment and diagnosis, including for people with complex communication needs
3. Clinical Care
 - a. Attitudes, values and beliefs (conscious and unconscious) about the quality of life of people with intellectual disability
 - b. Dignity, enablement and respect (including recognising the person's abilities and potential, developing person-centred goals, active inclusion in decision-making, empowerment)
 - c. Applying reasonable adjustments when delivering care to people with intellectual disability
 - d. Trauma informed care
 - e. Preventative health care and health promotion
 - f. Recognising deterioration in clinical status, diagnostic overshadowing, managing complexity
 - g. Non-pharmacological and pharmacological management (including minimisation of the use of restraint and chemical restraint)
4. Coordination and collaboration
 - a. Building relationships of trust and collaborative partnerships with patients, families, carers and support workers
 - b. Structure and function of the disability support system, including NDIS, supported accommodation and staffing, role of support staff.
 - c. Transitions in health and care, from child/young person, through adulthood, older persons' and end-of-life care.
 - d. Care navigation through health and disability services, including skills to make and support appropriate referral
 - e. Intra- and interdisciplinary collaboration
 - f. Health advocacy

5. Responsible, Safe and Ethical Practice
 - a. Rights of people with disability
 - b. Supported decision making
 - c. Advocacy, including recognising and addressing where rights have been breached
 - d. Autonomy, consent, and guardianship

Assessment Guidelines for University Curricula Development

1. Learning outcomes to measure and assess students' ability to demonstrate the core capabilities.
2. Approaches to assessment

Implementation Guidelines for Integrating Core Capabilities into Accreditation Standards and University Curricula

1. Resources, tools and guidelines to assist universities in the process of integrating and assessing core capabilities within their curricula.

3. Scope and Methodology

3.1 Purpose and Scope

The overall purpose of the project was to:

- Gain a baseline understanding of undergraduate learning resources, modules and curricula content that currently exist in intellectual disability health in Australia; and
- Seek to identify a gold standard/best practice for intellectual disability health content in undergraduate curricula.

The focus of the project is on:

- Improving the health care of people with intellectual disability by improving the knowledge, communication, and attitudes of health care professionals in their undergraduate training. (Courses or other training materials and literature whose main concern is with diagnostic aspects of intellectual disability are not within the scope of this project).
- Australian university undergraduate curricula in entry-level programs of study that provide initial preparation for a career in the health professions and lead to registration in that health profession. Graduate entry programs, where a prior undergraduate degree is required for program entry, are included. Other postgraduate programs, Continuing Professional Development (CPD), or vocational courses and vocational or other education providers other than universities are not in scope.

The health professions that are included are:

- medicine
- nursing and midwifery
- paramedicine
- dentistry and oral health
- pharmacy
- health and medical sciences
- occupational therapy
- speech pathology
- physiotherapy
- exercise physiology
- psychology
- social work
- dietetics

The specific objectives of the project were to:

- Identify current undergraduate intellectual disability health learning modules, resources, and curricula content
- Undertake a gap analysis of learning modules and resources, by health profession
- Provide advice and recommendations on learning modules and resources that should be developed to contribute to delivering the broader aims of the intellectual disability curriculum development Budget measure.

We drew on multiple information sources to answer the following key questions:

- What offerings currently exist?
- What does/should best practice look like?
- Do current offerings meet best practice?
- What are the implications/recommendations for the development of resources to support the integration of core intellectual disability capabilities in university curricula?

3.2 Methodology

3.2.1 Overview of methods

Our scoping and gap analysis drew on multiple sources of information and used a mix of methods to address the project questions (Table 1). The scoping phase involved three distinct but interlinked activities:

- Rapid review of published literature to identify examples of current approaches and best practice principles
- Desktop research to identify current intellectual disability health learning modules and resources available and undergraduate and pre-registration entry courses that contain content on intellectual disability health
- Stakeholder consultation to gain additional information about existing resources, opportunities, gaps and priorities in undergraduate education relevant to intellectual disability health.

Findings from the scoping phase informed the gap analysis where identified learning resources were mapped according to best practice characteristics identified through the literature review and stakeholder consultation and with reference to the draft *Intellectual Disability Health Capability Framework*.

Table 1: Sources of information to address project questions

Project question	Literature review	Desktop research	Stakeholder consultation	Gap analysis
What offerings and approaches currently exist?	✓	✓	✓	
What does, or should, best practice look like?	✓		✓	

Do current offerings meet best practice?	✓	✓	✓
What are the implications/recommendations?			✓

3.2.2 Some caveats

At the outset some important caveats need to be noted. The project involved a rapid and targeted approach within a 17-week time period (01 March-30 June 2022). The aim was to gather and collate relevant information in a rigorous but timely manner, to gain a wide range of perspectives, and to reach a saturation point across information sources. This involved a pragmatic approach to collating and synthesising the most pertinent information to address the project questions. It is important to acknowledge that an exhaustive systematic review of all possible information sources was not conducted, and it is possible that some key sources of information and stakeholder perspectives have not been included.

In undertaking stakeholder consultation, it became evident that the term “undergraduate training” should be broadened and instead be defined as “pre-registration education” to capture the varied educational pathways across the breadth of health professions. The aim was to include university health professions programs that lead to an entry-level qualification, registration with the Australian Health Practitioner Regulation Agency (AHPRA) and/or other professional accreditation and a role that involves direct patient contact. Pre-registration graduate entry programs where an undergraduate degree is a requirement for program applicants were included. While every effort was made to identify all relevant programs, it is possible that some relevant programs within these categories have been missed.

Our scoping and review of learning resources and curricula was confined largely to information that was readily available in the public domain or provided by stakeholders. Scoping was conducted at the course (or unit) level, and it is important to acknowledge that this approach precluded the identification of relevant content that may be included within courses that form part of an integrated curriculum. The absence of a standalone course does not infer that intellectual disability content is not included in a particular program. As we note throughout this report, traces of intellectual disability health exist but are often hidden from program websites. Detailed examination of all courses within a program was beyond the scope of this project. Where course outlines were scrutinised, not all relevant lectures, seminars, or workshops included in courses may be listed. Efforts were made to seek further information, but this was not always possible within the project timeframe.

Our focus was limited to a subset of health care professions. Many other health care professions including, but not limited to, sonography, audiology, optometry, podiatry, and others also have a significant role in the care of people with intellectual disability but were not within the scope of this project.

Nomenclature regarding university programs and courses varies. Programs generally refer to a collection of courses that may also be referred to as units or subjects. In this report, we have used the terms units and courses interchangeably and according to the term used by the university provider.

3.2.3 Literature review

We performed a rapid and targeted review of the literature on intellectual disability curriculum content for health professionals. Using a systematic search strategy, we searched seven databases (Pubmed, CINAHL, Embase, Proquest, PsycINFO, Web of Science, and Cochrane) for literature published between January 2012 and March 2022. In addition, we searched grey literature and performed cited literature searches. After full-text review, a total of 49 studies were included in the Literature Review. Following the screening process, data were extracted from the included studies, with reviewers recording study details including the aims, discipline type, study location, teaching approach, and curriculum details. All screening and data extraction was done using online systematic review software, Covidence. Data were extracted by one reviewer and cross-checked by a second reviewer. Full details of the literature review are provided in the accompanying document *ID Scoping and Gap Analysis_Literature Review*.

3.2.4 Desktop research

Identification of current intellectual disability health learning modules and resources

We conducted a targeted desktop search to identify intellectual disability health learning modules and resources currently available in Australia outside of formal university qualifications. The systematic online review of publicly available resources included:

- Peak bodies for the specified disciplines: medicine, nursing and midwifery, paramedicine, dentistry and oral health, pharmacy, psychology, social work, occupational therapy, speech pathology, physiotherapy, exercise physiology and dietetics
- Relevant disability, health, and research organisations
- Google and Google Scholar

Search terms for each website included the key term ‘disability’, with additional searching for more specific terms including: ‘intellectual disability’, ‘cognitive disability’, ‘developmental disability’, ‘dual disability’ and ‘special needs’. Relevant resources identified through stakeholder consultation were also included.

We reviewed each of the resources located through the desktop search and stakeholder feedback to identify those “in-scope” – that is, relevant to undergraduate and pre-registration graduate entry students. To ensure comprehensive scoping of Australian intellectual disability health education resources, we also collated details of educational resources relevant to intellectual disability health but not necessarily targeted at future health professionals in training, and the associated providing organisations.

Findings from the search were organised into an Excel spreadsheet under the following headings: Provider, Topic area(s), Resource title and link, Web address, Discipline area(s), Mode of delivery, Hours or points, Inclusion of intellectual disability content, Cost, Linkage to policy framework and Additional information.

Identification of Australian undergraduate and pre-registration entry courses that contain content on intellectual disability health

We conducted a targeted desktop search to identify specific courses (or units) relevant to intellectual disability health in all Australian undergraduate programs in the specified health disciplines. First, we searched the Australian Tertiary Admission Centres (TACs) website for each Australian state and territory to identify all relevant undergraduate and pre-registration graduate entry programs. To

ensure comprehensive review of pre-registration entry courses we undertook additional searches of the AHPRA Approved Programs of Study, as well as postgradaustralia (postgradaustralia.com.au) and Google search websites. To enable a rapid yet comprehensive review, we searched course content in one program considered most specific to the health discipline area from each identified university.

For each program within the specified discipline, we then searched the program website and handbook for courses that included intellectual disability health content or were likely to include intellectual disability health content, using the key terms noted above. Courses considered likely to include intellectual disability content were those that included content relevant to improving health care for people with intellectual disability without necessarily including key words specific to intellectual disability. These courses included the term “disability”, along with other relevant terms included in the *Intellectual Disability Health Capability Framework* (e.g., values, principles, communication, reasonable adjustments, ethics).

We collated search findings in an Excel spreadsheet organised by health discipline under the headings: Providing institution, Program, Undergraduate or postgraduate, State, Web address Intellectual disability-specific course identified (Yes/No), Course name, Additional course detail, Target cohort, Mode of delivery, Hours or points and Inclusion of intellectual disability content. A full list of the university programs included in this desktop search is provided in the accompanying file *ID Scoping and Gap Analysis_Desktop Scoping University Courses*.

3.2.5 Stakeholder consultation

We consulted a diverse range of stakeholders based on a stakeholder engagement plan that was developed with input from the Department. The initial list of stakeholders was expanded through outreach to and self-referral of individuals and organisations with an interest in the topic. Stakeholders included representatives of disability organisations, health professional groups, and universities. The consultation was designed to gain stakeholder perspectives, experiences and other additional information about gaps and priorities in intellectual disability health university education, as well as to augment the desktop searches for learning resources/modules and university courses. Contact was made with stakeholders by email. A response log was kept, and a reminder sent if no response was received to the initial contact. A full list of the organisations and individuals consulted is provided in the accompanying file *ID Scoping and Gap Analysis_List of Stakeholders*.

Stakeholders included:

- Members of the project’s Expert Advisory Group
- Members of the Health Professions Education Standing Group
- Representatives from all stakeholder organisations identified in the desktop search
- Coordinators for each of the university courses identified as “in-scope” or “likely to be in-scope”

Consultations took place via online group meetings, email, and individual telephone discussions. Stakeholders from the Expert Advisory Group, Health Professions Education Standing Group and all disability, health and research organisations were asked:

1. Do you know of any education and training resources appropriate for undergraduate students about providing quality health care to people with intellectual disability? (*Note: the education resources can include both publicly available resources or those only available for specific cohorts, for example within a university curriculum, health professional or*

disability organisation). Please provide details about these resources to help ensure they are included in this review.

2. What do you view as the priority areas and gaps (if any) in undergraduate health professional education about improving the health of people with intellectual disability?
3. Are you aware of any “champions” of undergraduate education in disability health in Australia who could help provide additional networks and expertise in this important area? Please provide any contact details you might have for these “champions” including their area of specialisation.

University course coordinators were invited to share any additional information about the course beyond that included on the university website that could be relevant, specifically:

1. What format/s does course delivery involve? (e.g., lectures, workshops, laboratory time, simulations)
2. How have you involved people with lived experience of intellectual disability?
3. What advice/policy guidelines/other standards or systems did you draw on to formulate the course content?

The additional stakeholder information was used to augment and extend the findings from the literature review and desktop searches. Stakeholder perspectives and experiences about priority areas and gaps in intellectual disability health education were synthesised and themes were identified.

We incorporated the intellectual disability health learning resources/modules that stakeholders identified into our collation of key Australian resources identified through the desktop search. Additionally, we collated a list of 'champions' in intellectual disability health across the discipline areas identified by stakeholders through the consultation process (see accompanying file *ID Scoping and Gap Analysis_List of Stakeholders*).

3.2.6 Gap analysis

Content analysis was used to map the learning resources/modules and courses according to best practice characteristics identified through the rapid review of evidence in the literature review and stakeholder consultation. The core focus areas of the draft *Intellectual Disability Health Capability Framework* were used to map the content of each learning module/resource and course (with a minor refinement to consider "Attitudes, values and beliefs" as a separate domain). We extracted relevant information from each learning resource and course using a curriculum mapping template in the form of a matrix. This enabled a summary of each educational offering by key dimensions, specifically:

- Inclusive teaching approach (i.e., audio-visual media, patient educators, simulation, includes family and/or supporters)
- Curriculum content (i.e., Attitudes, values and beliefs; Understanding the health of people with intellectual disability; Communication; Clinical care; Coordination and collaboration; Responsible, safe and ethical practice)
- Learning outcomes (i.e., Increased intellectual disability health knowledge and awareness; Development of intellectual disability health skills; Apply/practice knowledge and skills to people with intellectual disability)
- Whether stakeholder feedback had been received about the resource/course
- Additional comments (i.e., stakeholder feedback or other additional course information)

Two additional domains were included for the gap analysis mapping of university courses, specifically:

- Whether the course was core or elective
- Timing of the course across the program (i.e., Year 1, 2, 3, 4, progressive, any year)

We undertook several steps to ensure reliability and consistency of recording including substantial pre-testing and refinement of the gap analysis template through regular team meetings, and review of a subsample of templates by a senior project team member.

4. Intellectual Disability Health Undergraduate Training in Australia

Undergraduate education provides the foundation to prepare future health care professionals through the development of knowledge, skills and attitudes that are necessary for practice in a range of health care settings. This section of the report summarises findings from the scoping phase of the project to provide: an overview of relevant evidence from the published literature; a snapshot of courses and learning resources that are currently available or potentially adaptable for undergraduate health care professions students; and insights from a large and diverse group of stakeholders regarding intellectual disability health education.

4.1 Summary of literature review findings

Disability health education is sparse and fragmented in Australia and elsewhere (Doebrich et al. 2020; Trollor et al., 2020). In Australia, Trollor et al. (2020) found little overall improvement in the extent to which intellectual disability was addressed across eight medical schools almost 20 years following their initial 1995 audit of medical curricula. Increases in some medical schools were countered by decreases in others and while inclusive teaching practices had increased, direct clinical contact had decreased.

A range of approaches including lectures, small groups, simulation, placements, and various combinations of these are described in the literature. No one educational intervention or instructional method stands out as more effective than others and no single definition of best practice exists (Ioerger et al., 2019). Most published studies indicate positive outcomes in terms of student reactions, knowledge, comfort, and confidence. However, there is little assessment of longer-term outcomes, including patient care and health outcomes, and this is a notable gap (Ioerger et al., 2019; Rotenberg et al., 2022).

A total of 49 studies were included in the review, most published since 2016 and the majority from Australia, the US and the UK. Over two-thirds of the studies reported original research. Studies that reported on systematic, scoping, or other literature reviews that were directly relevant to our questions were also included and accounted for the remaining one-third of the studies. The studies reviewed encompassed a variety of health disciplines but curriculum for medical students was the predominant focus of the majority of studies (13 of 49 studies). Smaller numbers focused on nursing (6 studies) and dentistry (3 studies) with others focused on mixed (8 studies) or other (5 studies) disciplines. The full literature review, including the search strategy, inclusion criteria, and list of studies reviewed, is provided in the accompanying document *ID Scoping and Gap Analysis: Literature Review*. A number of initial source documents were also identified with the Department and through existing networks. These pre-defined sources provided further context for the literature review.

Data extraction was performed on all included studies, and key themes were identified in relation to best practice in curriculum for health professionals working with people with intellectual disability. The following key principles were identified through the literature review:

1. Content development should reflect **lived experience of people with intellectual disability** and their families and supporters: Involve people with intellectual disability and families and supporters in the development of training and education resources.

2. Curricula should provide **experiential learning opportunities**: teaching should incorporate a variety of methods and allow student interaction with people with intellectual disability.
3. Teaching should incorporate **a variety of content areas** to: increase knowledge, address stigma, and improve communication skills.
4. Students should be taught **interprofessional, interdisciplinary and teamwork skills** to foster holistic care and address clients' needs.
5. Content and curriculum should be **supported at a systems level**: Development of an enabling policy framework and generalised curriculum for specific disciplines to guide teaching content; for example, the development of a national framework for education on intellectual disability.

Below, we discuss how these key themes emerged from the reviewed literature.

1. Content development should reflect the **lived experience of people with intellectual disability** and their families and supporters

To ensure that teaching is inclusive and reflective of the lived experience of people with intellectual disability, curriculum should be developed with input from people with intellectual disability and their families and supporters (Rotenberg et al., 2021). The contribution of service users and carers in planning, providing, and evaluating training for all healthcare professionals is important.

Introducing opportunities to meet with patients/people with disabilities early in training, adapt interviews to accommodate exceptionalities, and practice with clinical teams appears to effectively shift comfort, confidence, and competence in learners and thereby increase capacity to address the needs of those with intellectual disability (Boyd et al., 2019; Coret et al., 2018; Jiwa et al., 2020; Jones et al., 2015).

2. Curricula should provide **experiential learning opportunities**

Students should be provided the opportunity to interact with people with intellectual disability to facilitate meaningful learning experiences (Karl et al., 2013; Shields & Taylor, 2014; Sinai et al., 2013; Symons et al., 2014; Jones et al., 2015).

Clinical placement is vital for students to enhance their knowledge, skill, and competence through hands-on training. This experience may provide them with opportunities for professional development they would not necessarily get in the acute care settings where their clinical education is traditionally focused (Shields & Taylor et al, 2014; Phlypo et al, 2018). However, in various allied health disciplines where there is a shortage of clinical placements or the scope of clinical placement is limited, community-based placements to work with people with intellectual disability are recommended. Including a person with intellectual disability or a family/carer in early training could boost the comfort, confidence, and competence of the learners to address the appropriate needs of these people while seeking medical care (Boyd et al, 2019). The students can gain first-hand experience about their needs and expectations of healthcare professionals and people with intellectual disability can contribute to planning, providing, and evaluating training for healthcare professionals if they wish (Shields & Taylor, 2014; Symons et al., 2014; Rotenberg et al., 2022; Spackman et al., 2016; Symons et al., 2014).

Where a patient educator or person with intellectual disability is unavailable, involving actors or simulation is another option described in the literature. Involving actors with an intellectual disability as simulated patients allows students to observe, apply and receive feedback on appropriate professional skills for working with people with intellectual disability (Watkins & Colgate et al, 2016; Doody & Condon, 2013; Rotenberg et al, 2022; Thomas et al, 2014; Watkins et al, 2016).

3. Teaching should incorporate **a variety of content areas** to: increase knowledge, address stigma, and improve communication skills.

To ensure that health professionals can provide high quality care for people with intellectual disability, tools and educational content should be incorporated in the curriculum to:

- Improve the knowledge of students about issues related to intellectual disability (Dougall et al, 2012; Edwards et al, 2021; Jones et al, 2015; Karl et al, 2013; Phlypo et al, 2018; Rotenberg et al, 2022; Sinai et al, 2013; van Wieringen et al, 2015; Watkins et al, 2016). Intellectual disability curriculum content for health professionals should include lessons on ethical, moral and legal obligations in protecting and promoting the health of people with intellectual disability (Spackman et al, 2016).
- Improve communication skills and interpersonal relationships for working with people with intellectual disability (Hartnett et al, 2020; Jones et al, 2015; Thomas et al, 2014),
- Educate students on appropriate clinical assessment skills (Doody et al, 2013; Edwards et al, 2021; Karl et al, 2013; Thomas et al, 2014; Trollor et al, 2016),
- Improve student confidence (Rotenberg et al., 2022), comfort, and competence in working with people with intellectual disability (Ceglio et al., 2020; Symons et al, 2014; Thomas et al, 2014). If medical professionals cannot feel confident and comfortable working with patients with intellectual disability due to lack of these skills or due to stigma or other fears, these patients may have increased difficulties receiving access to care and competent medical treatment. (Ceglio et al, 2020).
- Improve student attitudes towards people with intellectual disability (Dougall et al, 2012; Edwards et al, 2021; Jones et al, 2015; Karl et al, 2013; Phlypo et al, 2018; Sinai et al, 2013; Symons et al, 2014; van Wieringen et al, 2015; Watkins et al, 2016). Appropriate content should also be included to address discrimination, such as value judgments by healthcare staff about the worth of people with intellectual disability (Spackman 2016), and human rights (Trollor et al, 2016a, b, 2018a, b; Lee et al, 2021; Spackman et al, 2016; Symons et al, 2014).

4. Students should be taught **interprofessional, interdisciplinary and team-work skills** to foster holistic care and address clients' needs.

An interprofessional blended training curriculum for future healthcare professionals can foster best practice and quality service for people with intellectual disability (Jones et al., 2015). In their audit of intellectual disability health content within Australian medical curricula, Trollor et al. (2016) observed that interdisciplinary teamwork was poorly represented in intellectual disability teaching. Jones et al. (2015) found that an interprofessional education program for health professionals improved student knowledge, skills, and attitudes to people with intellectual disability and helped to prepare students for collaborative practice to enhance multidisciplinary care.

5. Content and curriculum should be **supported at a systems level**.

Several reviews identified the fragmented nature of intellectual disability training for health workers and the need for systemic change to ensure that health workers are provided with appropriate and high quality training for working with people with intellectual disability (Rotenberg et al., 2021; Trollor et al., 2020). Rotenberg et al. (2021) noted that there is limited evidence of systemic integration of disability training within health worker training programs. Trollor et al. (2020) recommended the inclusion of minimum standards for graduate capabilities in intellectual disability health in the Standards for Assessment and Accreditation of Primary Medical Programs, and the development of a minimum standards toolkit. Systemic change is necessary to ensure the integration of intellectual disability curriculum into health worker training and education through the development of an enabling policy framework and generalised curriculum for specific disciplines to guide teaching content (Rotenberg et al., 2021; Trollor et al., 2020).

Several publications identified in the literature review offer specific guidance and additional resources that could enhance the development of programs in the Australian setting. Three specific examples are highlighted below.



Boyd et al. (2019) reported on the development, implementation and evaluation of [Curriculum of Caring](#) at McMaster University, Canada. Designed to improve the capacity of healthcare professionals to deliver person/family-centred care to people who live with intellectual and/or developmental disabilities, the curriculum provided opportunities for experiential learning including group reflective and case-based discussions, engagement with people/families of people with intellectual disability, training in clinical interviewing skills and working with patients in clinical settings as part of an inter-professional team. The program has expanded since this publication and the above website includes many resources, including videos containing personal narratives, clinical skills modules, and online community of practice. This is an interdisciplinary model that could be translated and adapted for Australian settings. Many individual resources are also available.

Equity Access: Online Nursing Education on Care for People With Disabilities

Alison Colbert, PhD, PHCNS-BC, FAAN; and Rebecca Kronk, PhD, CRNP, FAAN, CNE

In the US, Colbert and Kronk (2020) reported on the [Equity Access Program](#) developed at the Dusque University School of Nursing. A set of e-learning modules was developed in collaboration with community organisations and individuals with disabilities, and included perspectives of clinicians, scholars, writers, activists who are active in disability rights, and individuals living with disabilities. A notable inclusion is the [Consultant with Disability Simulation Program](#) where people living with a disability are invited to train as Simulated Patient Consultants. This model of inclusive teaching involves strong links with disability organisations and a further example is described by Watkins and Colgate (2016) who collaborated with a self-advocacy organisation and actors with intellectual disability to develop a simulated patient program in Cardiff, Wales.

Interprofessional Education in Canada: Addressing Knowledge, Skills, and Attitudes Concerning Intellectual Disability for Future Healthcare Professionals

Jessica Jones, Meg McQueen, Samantha Lowe, Patricia Minnes, and Alexis Rischke
Queen's University, Kingston, Ontario, Canada

Jones et al. (2015) describe the development and evaluation of an innovative course designed to promote interprofessional education and practice among students in the fields of medicine, nursing, clinical psychology, occupational therapy, and physiotherapy at Queen's University, Canada. Detailed in the paper are curriculum components that included Foundational knowledge (through a mix of e-learning, seminars, and didactic lectures); Client engagement (experiential learning); and Case study and team-based learning (interactive interprofessional learning).

4.2 Summary of desktop research

4.2.1 Current intellectual disability health learning modules and resources

A total of 27 relevant learning modules and resources were identified from our desktop search of materials that are available outside of the university setting including those developed by disability organisations, professional bodies, and research groups. An overall summary and illustrative examples that could contribute to pre-registration education are provided below. A full list of the peak professional bodies, disability, health and research organisation websites, together with relevant findings, is included in the desktop search is provided in accompanying file *ID Scoping and Gap Analysis_Learning Resources*.

Most learning resources had an interprofessional focus, mainly including health and mental health professionals and disability support workers. Most were developed for professionals who are already working in the area, not specifically for undergraduate students. While just over half of the resources identified had a specific focus on intellectual disability (n=14), others included intellectual disability among other types of disabilities. While the focus of this activity was the identification of relevant Australian resources, three international resources were identified and recommended for inclusion through stakeholder consultations. Online delivery was the most common mode of delivery, including webinars, e-learning resources, online videos and online courses. As expected in an online format, most of the learning resources identified only included content that aimed to increase knowledge and awareness of various issues and topics in the context of disability, with fewer addressing opportunities to practise and apply the concepts and skills learnt via role plays, simulation exercises, placement or other experiential opportunities.

It was not usually possible to determine from the information available on the websites whether inclusive teaching was included for most resources and modules. However, just over half of the identified resources and learning modules mentioned incorporating some form of inclusive teaching methods, often in combination, including videos of people with intellectual disability and of their families and supporters (n=7) inclusion of patient educators in the development (n=3) and delivery of the course content (n=3), involving Expert Working/Advisory Group of people with lived experience (n=2) and use of personal stories from families and supporters (n=1). One international resource

from the UK, the Oliver McGowan Mandatory Training in Learning Disability and Autism (Health Education England, 2020) also included people with lived experience of disability in the design and delivery of training.

In terms of the curriculum content, most modules and resources focused on understanding the health of people with intellectual disability, including intellectual disability (n=21). Less frequently covered was content about appropriate clinical care skills in caring for this population (n=12), principles of responsible, safe and ethical practice, improving communication skills to cater to the needs of people with disabilities, and understanding inter-sectoral collaboration and coordination to improve care for people with disabilities (n=11 for each of these content domains). Changing attitudes, values and beliefs was the least frequently covered area (n=8).

Examples of high quality learning resources that provide evidence-based content aligned to the Intellectual Disability Health Capability Areas are presented below.



The ABLEx Series

The ABLEx massive open online course (MOOC) includes three courses tiered for Years 1 to 3 for students in health and medical degrees as well as suitable for registered professionals. The introductory course, *Through my Eyes*, focuses on stories of people with intellectual disabilities around the world, and those of their families and supporters. Explored within the stories are the challenges and obstacles experienced and how they are overcome, including specific health care needs and approaches to promote good health for people with an intellectual disability. Key physical health issues that affect people with an intellectual disability are considered in the *Well and Able* course, for example oral health, syndrome specific health issues, health communication, especially for non-verbal patients, sexual health, and interactions between tertiary and primary healthcare systems. Mental health issues of people with intellectual disability are a focus of the *Able-minded* course, including the legal and ethical complexities in health practice with patients who may require substituted consent. Discussion forums, videos, readings and ungraded assessments are available for all participants. Graded assessments and exams are available in the “verified track” option which provides a verified certificate on completion. Course coordinators could use this MOOC as a resource to complement other teaching, for example the introductory course is 1-2 hours per week for 4 weeks. The video footage is freely available through Creative Commons licencing and could also be integrated within university Programs as an inclusive teaching resource.

Department of Developmental Disability Neuropsychiatry (3DN), University of New South Wales



The Department of Developmental Disability Neuropsychiatry (3DN) provides interactive education resources useful for health professionals and students, including fundamental topics such as introduction to intellectual disability, guiding principles, communication, and reasonable adjustments to clinical practice. 3DN are also nearing completion of an intellectual disability mental health webtool (before a pilot study) involving the creation of numerous resources and tools for professionals and people with intellectual disability/their support networks as well as external resources on mental health, health, allied health, and disability services and supports. Engagement with these resources could be incorporated as activities in mental health courses and placements, including those training health staff to support mental health care in emergency departments.

Professional Association of Nurses in Developmental Disability Association Australia (PANDAA)

PANDAA represents the professional interests of nurses who support people who have an intellectual developmental disability. This includes hosting [*Every Nurse's Business*](#), an online continuing professional development (CPD) short course developed by a consortia of nursing organisations and university partners (led by Professor Andrew Cashin (Southern Cross University)). Though designed for registered nurses, the course is offered at three levels: foundational, intermediate, and advanced and may be potentially relevant or adaptable for undergraduate nursing students. Content covers caring for people with intellectual disability and/or autism spectrum disorders (ASD): care imperatives; communication to individuals with ASD and/or intellectual disability; understanding communication from individuals with ASD and/or intellectual disability; environments of care; supporting positive behaviour; making things go well; and introduction to the National Disability Insurance Scheme (NDIS).

Agency for Clinical Innovation, Intellectual Disability Network

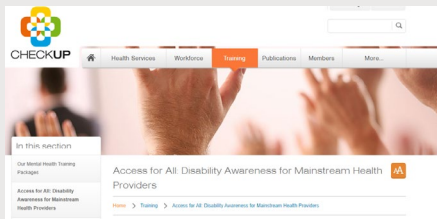


Offers a range of online training videos for health professionals, including videos of people with intellectual disability and their families and supporters. This includes the [Say Less, Show More](#) e-learning package of resources for health professionals. An [Intellectual Disability Toolkit](#) provides resources including case studies that could be used to stimulate learning and discussion. Building capability in NSW health services for people with intellectual disability: the Essentials provides a range of further relevant material and resources, including a [self-assessment tool](#) that could provide a useful model to support implementation of the Framework.

Centre for Developmental Disability Health (CDDH) Victoria, Monash

[Health and Disability: Partnerships in Action](#) is a teaching and learning package, produced through an interprofessional collaboration between dentists, dietitians, medical practitioners, nurses, occupational therapists, paramedics, physiotherapists, social workers, speech pathologists and students. Six video stories presented by people living with intellectual disability explore issues related to health and healthcare. The videos provide a context for learning and are supported by a student workbook and tutor guide. This resource was a foundation for the La Trobe University course *Health and Wellbeing of People with Developmental Disabilities*. The CDDH offers several online resources including 'Medical assessment and management of behaviours of concern in people with Intellectual Disability' aimed at GPs; Professional Practice space, My Allied Health Space and My Support Space aimed at allied health and other health professionals, including to support education prior to and during a professional practice placement.

[Access for All: Disability Awareness for Mainstream Health Providers, CheckUP](#)



This self-paced online training offers a 3D simulated training environment for health professionals to practice skills via the privacy of an App (both Apple or Android). The App enables users to choose a character (as a clinician, administrator or person with a disability) and participate in short scenarios in which people with different types of disabilities access care in mainstream health care settings. This project has the objective to “*stimulate and encourage practice change in the delivery of mainstream health services in regional, rural and remote Queensland*” and is funded under a National Disability Insurance Agency program. This resource is an example of an online platform that provides opportunities for students to develop skills.

[Providing healthcare for clients with an intellectual disability, CQ University](#)

This inter-disciplinary micro-credential (short course) is a two-hour, self-paced, online course for nurses and other healthcare professionals. The content considers the complexities of providing access to quality health care, why poorer outcomes might arise for people with intellectual disabilities and guidance about approaches to improve outcomes. Participants receive a certificate of completion

[Down Syndrome Australia - Health Ambassadors Program](#)



This program, through inclusive education, aims to educate health care professionals and students to provide better health care. A group of individuals with Down syndrome from each state and territory work with health care professionals on a range of topic areas including inclusive understanding about Down syndrome, and how to make a positive difference to health outcomes through communication and reasonable adjustments. Educational facilities can make contact to request one of the Health Ambassadors to speak with student groups in online or

face to face settings. Also available on the [Down Syndrome Australia Resource Hub](#) are a wide range of student resources.

4.2.2 Undergraduate and pre-registration graduate entry courses

Through the desktop search as described above, 450 programs were identified in the specified health disciplines, with 96 of those programs offering at least one course that either included intellectual disability health content or was likely to include intellectual disability health content (Table 2). A full list of search results by discipline is provided in accompanying file *ID Scoping and Gap Analysis_Desktop scoping university courses*.

The discipline areas that were most likely to provide courses with intellectual disability content were occupational therapy (20 of 39 courses), speech pathology (10 of 25 courses) and social work (23 of 54 courses).

Table 2: Total number of courses searched for intellectual disability health content

	Included Programs/Courses				Excluded Programs/Courses				
	UG	PG	DUAL	Total	UG	PG	DUAL	Total	
Medicine			2	2	9	16	3	28	30
Nursing and midwifery	3			3	43	18		61	64
Paramedicine	2			2	11	2		13	15
Dentistry and oral health	3		2	5	12		2	14	19
Pharmacy				0	15	6	2	23	23
Health and medical sciences	7			7	27			27	34
Occupational therapy	14	6		20	9	9	1	19	39
Speech pathology	7	3		10	7	7	1	15	25
Physiotherapy	7	2		9	11	9		20	29
Exercise physiology	4			4	6	15	1	22	26
Psychology	4	6		10	24	32		56	66
Social work	14	9		23	13	18		31	54
Dietetics	1			1	11	13	1	25	26
	66	26	4	96	198	145	11	354	450

Note: UG refers to undergraduate courses, PG refers to postgraduate courses, DUAL refers to dual degrees (double degree pathways to pre-registration entry within a discipline area)

Of the courses identified as in-scope, two were identified as having a major specific focus relevant to intellectual disability health, offered to three discipline areas:

- **Health and Wellbeing of People with Developmental Disabilities**, La Trobe University. This is a core Year 1 course for occupational therapy, speech pathology and social work students and available as an elective for other programs.
- **Social Inclusion and People with Intellectual Disabilities**, Edith Cowan University. This is a first year core course for social work students and available as an elective to other programs. The course explores topics around historical and current policy and practice including the NDIS, communication, and ethical issues around advocacy and guardianship. A key focus of this course is to provide opportunities for students to question and challenge common assumptions about 'intellectual disability' and intellectually disabled people. For example, in a previous year one of

the educators with lived experience was a fashion designer, giving the students the opportunity to challenge assumptions about the social roles of people with intellectual disability, beyond the client-practitioner role within social work practice settings.

Health and Wellbeing of People with Developmental Disabilities online course, La Trobe University

One of the courses with a major focus on intellectual disability health, this course has been provided online since first offered in 2014 and is available across multiple campuses for more than 400 students per year. It is a core course for some allied health undergraduate degrees (occupational therapy, speech pathology and social work) and an elective to other programs. The course involves inclusive teaching in several ways. Some video content is from the CHHD Victoria, Monash University, *Health and Disability: Partnerships in Action* resource which includes DVD-based stories of someone with a disability, exploring issues relating to their health and health care, along with learning activities and sample responses. Employment of tutors with lived experience of disability also provide insights for students. This model of a first-year foundation course providing guiding principles and insights offers an approach to the provision of foundational interdisciplinary learning that can be reinforced and extended across other courses and placements.

Of the remaining courses, 27 courses were identified in which the course included at least some intellectual disability health content, and an additional 63 courses were identified which were considered “likely to include intellectual disability health content” (Figure 1). Occupational therapy and speech pathology courses were the discipline areas most likely to offer courses that specifically identify content related to improving health care for people with intellectual disability.

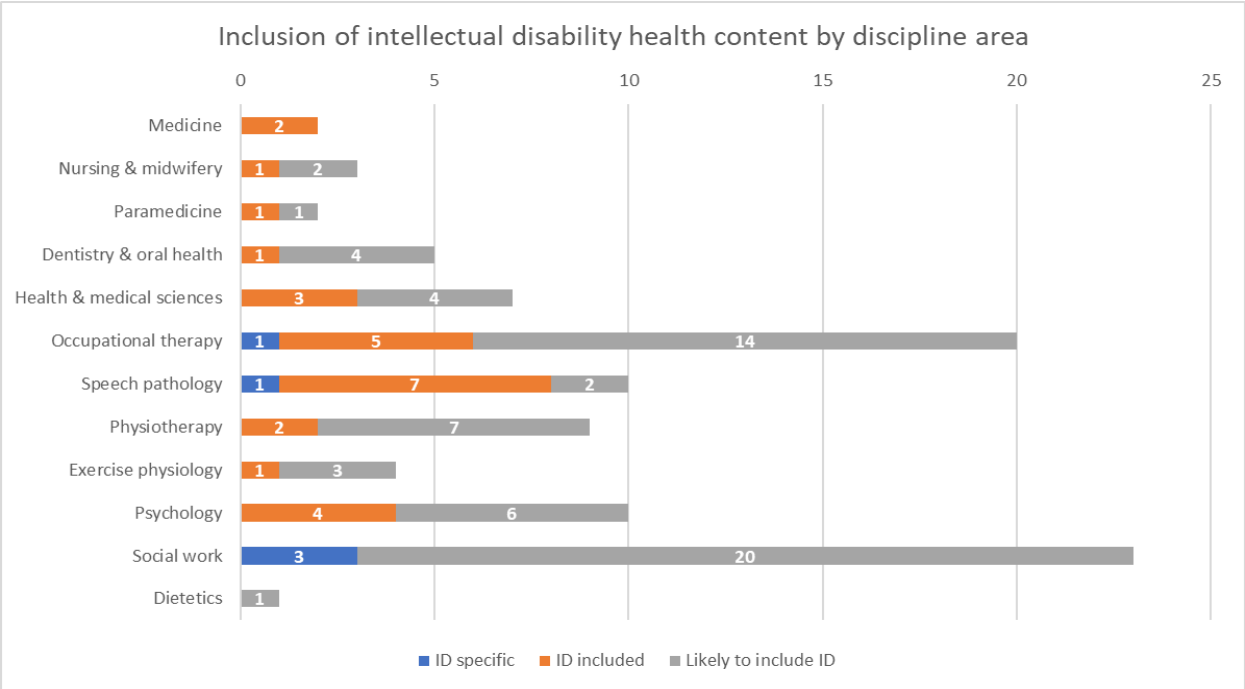


Figure 1: Number of courses with a major focus on intellectual disability health, include intellectual disability health content, or are likely to include intellectual disability health content

4.3 Summary of stakeholder consultations

Stakeholders provided valuable information and insights into offerings and approaches that currently exist, features of best practice, 'champions' in the area, priority areas and gaps, and potential barriers and opportunities relevant to intellectual disability health curricula.

Email responses were received from 86 stakeholders (45 representatives from disability, health and peak professional organisations and 39 course coordinators). Discussions with stakeholders led us to identify an additional 57 'champions' in the field of intellectual disability health.

Additional information was gathered through online meetings or telephone or video communications (including three group meetings and nine one-on-one conversations). The detailed information that many stakeholders provided was indicative of the level of interest and degree of importance placed on the topic. The extent of the response from stakeholders is notable, particularly within the short project timeframe that coincided with significant teaching responsibilities for most course coordinators. Also notable was that some stakeholders reported that they were not aware of available resources or champions but had responded to express their interest in intellectual disability health education and training resources.

Analysis of the information gathered highlighted stakeholder perceptions of the current and desired future state of intellectual disability health education including areas of challenge and opportunity. Stakeholders also identified specific areas of content that they viewed as integral to pre-registration education.

4.3.1 Perceptions of intellectual disability health education

Intellectual disability education is patchy, with pockets of excellence

Strongly highlighted by stakeholders was the variable and fragmented nature of intellectual disability health education and its reliance on "champions" within a university faculty who hold particular expertise and interest and provide "*pockets of excellence*". The words of one stakeholder champion summed up the power of their passion for this field as they reflected on their ongoing personal efforts to actively encourage students to undertake a specialist intellectual disability health course.

A stakeholder from the university sector discussed their faculty's review of intellectual disability content in their undergraduate and pre-registration entry degrees for several health professions and concluded that "*inclusion of content was patchy, and we did not guarantee that all students were able to graduate with any exposure to content relevant to cognitive disability, as much of the teaching that did exist was dependent on electives or placement choices*".

Intellectual disability health content was viewed as "*very low/non-existent*" for undergraduate courses in comparison to the opportunities for specialist training in postgraduate courses in applied fields. The limited intellectual disability health education was raised in relation to pharmacy (e.g., "*Intellectual disability health education is an add on*"; "*Many universities don't teach this topic, or only minimally*") and specialist academic practitioners in Special Needs Dentistry highlighted the lack of professionals with appropriate skill and experience in university teaching and clinical roles: "*We need to train more Specialists in Special Needs Dentistry to lead as we don't have enough presently in Australia for the teaching, research, clinical or advocacy work required.*" Similarly, in the discipline of psychology, comments from the Australian Psychological Society underscored the need for "*the availability of appropriately qualified and experienced psychologists for supervision in the aged care and disability sectors, and effective oversight of such frameworks.*"

Lived experience educators offer a 'transformative opportunity'

The critical need for educators to have lived experience of intellectual disability was widely emphasised. Many benefits of inclusive teaching were identified including:

- Being a transformative opportunity in which students will recognise, remember and value their expertise
- Greater willingness to treat people with intellectual disability when employed as a registered professional
- The opportunity to help position people with intellectual disability in valued meaningful roles that can help to shape future health care

One stakeholder summed it up as follows:

“Shaping positive attitudes through direct exposure to people with intellectual disability, gaining an understanding of the value of their lives ... this is the most important thing.”

Elements of good practice inclusive teaching were highlighted:

- The involvement of people with lived experience of intellectual disability as **paid educators** not volunteers
- Engaging people with intellectual disability in **co-design** of the learning materials as well as partnering to engage in **co-delivery** (*“Insider experience must be central to curriculum development - not just the talking heads but true co-design”*)
- Ensuring people with intellectual disability are included in **interactive case studies** where the person is paid to be a “pretend patient” for a student to take a medical history
- Including people with lived experience who can *“speak from a **variety of perspectives and experiences** given the diversity of lived experience of individuals living with a disability. Hearing from carers, and existing workers is still valuable but should be in addition and not a replacement”*

Some disability organisations have capacity to support the university sector to employ people with lived experience who have interest and expertise in health education, for example the Down Syndrome Australia Health Ambassadors program, Council for Intellectual Disability and Queenslanders with Disability Network.

One of the practical considerations in inclusive teaching is payment models within university payment structures. A range of payment options is available depending on the context, and could include casual pay, short-term contracts, or invoicing the supplier if they have an ABN.

Placements in clinical and community settings provide real-world learning opportunities

The critical need for placement experiences to enable application of knowledge and skills was widely emphasised. The lack of clinical placements was viewed by some as a major gap in learning about intellectual disability health. Stakeholders suggested a variety of approaches to increase the opportunity for clinical placements and to amplify their benefits, including:

- Utilising peak professional bodies where potential may exist to facilitate pre-registration student placements. For example, the Australian Psychological Society noted that they were well-placed to work with university post-graduate programs to arrange suitable placements and post-graduate employment opportunities within metropolitan and rural and remote locations.

- Placements within disability settings in the community were considered to offer many potential benefits for students (to gain real world experience and to apply and consolidate their skills), universities (where there is often a shortage of clinical placement opportunities), and for the wider community (where students may be able to make a positive contribution to service provision at placement sites).

Challenges and barriers to the successful and sustainable implementation of placement opportunities exist. One stakeholder remarked that placement opportunities are available and being provided to students but are not yet coordinated in a way that enabled them to be considered as intellectual disability health placements. A coordinated approach is needed.

However, several examples of placements were described by stakeholders, including those for groups of students (rather than individual placements) within institutions such as hospitals or community agencies. For example, the University of Sydney, Bachelor of Oral Health program includes placements at the 'Special Care Unit' at Westmead hospital and other institutional settings with a focus on: *"communicating with people who have cognitive disabilities, carers and legal guardians; managing and providing treatment for individuals with cognitive disabilities; and liaising with other health professionals to improve the oral and overall, health of patients with cognitive disabilities"*. The Master of Speech Pathology program at Charles Sturt University has an on-site student-led speech pathology clinic where students undertake clinical placements (providing services at reduced rates). Students provide support to adults with intellectual disabilities including *"the process of goal setting with the participants, providing support and completing documentation to report back to NDIS / advocate to NDIS. The clinic was set up in consultation with NDIA [National Disability Insurance Agency] including the Quality and Safeguards Commission. The clinic has enabled students to gain direct experience supporting people with intellectual disability with supervision"*.

Synthesis and "joining up" of course content is needed for more holistic understanding

Integration of courses through all years of the course and throughout a range of teaching topics and modalities was identified as a critical gap in current intellectual disability health teaching. One stakeholder highlighted the benefits of introducing intellectual disability health content for first year students *"from the get-go"* to help set up the *"lens"* students see through and enhance their capacity for critique and reflection across their training.

"Joining-up" content involves the opportunity for students to be exposed to, understand and engage in critical reflection about different theoretical frameworks that are taught within different disciplinary contexts. As one stakeholder explained:

"Students might learn medical models, and in a different discipline they would learn social models, or another model such as human rights approaches. What is missing is a joining up and discussion."

Integration of intellectual disability health content over time also provided the opportunity to include intellectual disability health content across a range of different courses in the context of a typically crowded curriculum. An example given was the provision of a simulated patient script to portray a person with Down syndrome or cerebral palsy that was available for inclusion across one university's simulation education facility.

Making links between intellectual disability health and other population groups

Some stakeholders emphasised the need to consider how education about intellectual disability health fits into the context of health care for diverse population groups who may also experience systematic disadvantage. Embedded in the understanding of intellectual disability health practices as relevant to other population groups is the need for *“an intersectional approach that considers factors such as race, gender, sexuality and culture.”* For another stakeholder:

“A priority area for me is how to integrate education about care of people with intellectual disability across the whole of health professional education so that - whatever topic or context of teaching - students get to think how this might apply to this group or other vulnerable groups, such as aged, CALD, low socioeconomic groups...”

Several stakeholders highlighted the relevance of intellectual disability health knowledge and skills to the provision of quality care for other health conditions, for example people living with health conditions such as brain injury, stroke, Parkinson’s disease and multiple sclerosis experience physical, cognitive, sensory and communication challenges that are often missed.

However, others cautioned about providing solely generic disability health content. They strongly emphasised the importance of a specific focus on intellectual disability given the particularly high levels of need for this population group, a tradition of neglect of the topic, and the risk of de-emphasising the specific needs of people with intellectual disability. One stakeholder considered quality of care for people with intellectual disability to be an indicator of health care quality more broadly: *“If you want change in the health care system, look at areas that are functioning the least well. If you can make the system work for this group, then you can get it right for other groups”.*

Specific discipline needs were identified, for example in the field of dentistry while *“Undergraduates require a more cohesive and broad brush approach – Special Needs Dentistry requires a dedicated program of its own for all cohorts of dental undergraduates. This [area of practice] is as unique as geriatric dentistry, oral surgery, orthodontics etc. that are given a semester long program”.*

4.3.2 Priorities in intellectual disability health curriculum content

Stakeholders identified specific content areas that were highly aligned to the draft *Intellectual Disability Health Curriculum Framework* elements. Table 3 summarises stakeholder-identified content priorities according to the elements of the Framework. The critical importance of ensuring future health professionals undertake education going beyond technical knowledge alone, was highlighted in the following reflection from a Dean of a Medical School:

“...it is crucial to ensure that teaching on ethics, communication skills, person-centredness, medicolegal frameworks and requirements, etc., include the provision of equitable care to all people, including those with intellectual disability and their families. This second focus is more important than the laying of a solid knowledge base of the clinical and biomedical aspects.”

The need to specifically incorporate teaching to address underlying attitudes and values of future health professionals was strongly emphasised. In the words of one stakeholder: *“the attitudes from some health professionals...can be harmful”* and for another: *“A lot of issues could be resolved if we instilled in health care students the need to be respectful to people with intellectual disability”.*

Table 3: Illustrative stakeholder recommendations about key priority content

Content domain	Stakeholder comments and recommendations
<i>Attitudes, values and beliefs</i>	<ul style="list-style-type: none"> • Understanding dignity of risk and the right to take reasonable risks • Address preconceived and outdated stereotyped thoughts on people with intellectual disability • Frameworks that draw attention to wider cultures within health care that impact service provision, e.g., disability conscious medicine (see Doebrich et al., 2020)
<i>Understanding the health of people with intellectual disability</i>	<ul style="list-style-type: none"> • Ensuring that health professionals understand the person's life in its entirety, including how a person's health is affected by their social resources, educational opportunities etc • Key physical and mental health issues and discipline tailored information (e.g., awareness to identify a need for referral, diagnosis, management) • The higher rates of health and mental health problems in people with intellectual disability, and the interplay of reasons for this • Knowledge of different types of intellectual disability e.g., Down syndrome myths and facts • Understanding a range of policies, frameworks and models, including World Health Organisation's International Classification of Functioning, Disability and Health, social model of disability, developmental model of disability, affirmative model of disability and others
<i>Communication</i>	<ul style="list-style-type: none"> • Communication skills and communication styles, including beyond speech with opportunity to practice these skills: <i>"I don't think many health professionals would understand how to communicate with someone who is non-verbal"</i> • Learning about the importance of collateral history (i.e., seeking information from support people, other sources) but without discounting development of communication skills to enable input from individuals with intellectual disability • Learning to listen, to take more time than with a person without a disability, to communicate at the right level, to take into account the views and needs of family and carers • How to adjust communication (covering this will benefit all patients) • Informed decision making and choices
<i>Clinical care</i>	<ul style="list-style-type: none"> • Person-centred practices: <i>"hearing the voice of the person with disability as a first option, then gathering more information from their carers and support network"</i> • The need for equitable adjustments by practitioners in their approach to people with intellectual disabilities: recognising that the needs of everyone with an intellectual disability will be different and require a unique approach; use of a variety of communication

Content domain	Stakeholder comments and recommendations
	<p>methods, the allocation of greater time to consultations, and an awareness that in certain circumstances certain environments and/or stimuli may be a hindrance to building a strong therapeutic relationship</p> <ul style="list-style-type: none"> • What a reasonable adjustment is and why they matter • Learning about the legal responsibility to provide reasonable adjustments and guidance on how to provide these. • Environmental adaptations • Positive Behaviour Support and Elimination of Restrictive Practice • Trauma-informed care, recognition of sensory needs, as well as unmet communication and social needs • An understanding of the serious implications of diagnostic overshadowing • How to approach identification of abuse within a health setting
<i>Coordination and collaboration</i>	<ul style="list-style-type: none"> • The ability to engage in interprofessional collaborative practice to provide person-centred care, such as interacting with carers, decision makers (if necessary) • Understand ways to make health clinics more accessible, for example best timing for appointments, training of auxiliary staff, accessible bathrooms • Knowledge about the intersection of the NDIS and other health professionals' roles
<i>Responsible, safe and ethical practice</i>	<ul style="list-style-type: none"> • Human rights perspective, understanding of key ethical and legal frameworks • Autonomy and consent • Legal responsibility to provide reasonable adjustments and guidance on how to provide these • NDIS Practice Standards • An overview of ethical issues such as forced sterilisation, chemical restraint, DNR orders, organ donor recipient status, palliation, and euthanasia

Systemic considerations across university, disability, professional and health sectors

Stakeholders widely agreed that improved undergraduate education in intellectual disability health was an important step to better health outcomes for this population group. Many also expressed the strong view that, while necessary, improving undergraduate education was not sufficient to bring about needed change to improve the health of people with intellectual disability. Health system support and embedding of intellectual disability-inclusive approaches into all care settings was also necessary for ongoing development of professional skills and attitudes.

Recognition of the wider university and professional body contexts was also seen as important. Some representatives from the university sector communicated that while they were wholly supportive of strengthening curriculum development in intellectual disability health, there should be

the capacity within this for different universities to engage in varied approaches and to innovate in ways that were most relevant and appropriate for local contexts.

Stakeholders affirmed the value of having access to high quality resources and training to support health professionals engaged in the provision of university education. One stakeholder identified a need for expert health professionals *“to provide updated information and CPD for university and college lecturers who are providing this information to undergraduates”*. In a further example, the Australian Psychological Society noted the need for development of a training syllabus for psychologists undertaking pre-registration entry qualifications as well as a *“a high-quality supervision and professional development framework for psychologists working in the disability sectors”*.

Processes to enable sharing resources between universities was suggested as a way of promoting knowledge exchange, developing best practice and building capacity with regard to intellectual disability health education. Having ready access to best practice materials would be of likely benefit to many university teachers who frequently work in a time-poor environment. Such resource sharing would require consideration of intellectual property issues that may vary across universities and according to the type of resource.

Several stakeholders noted the key role of professional registration and accreditation bodies; for example, it was noted that content on special needs dentistry has been a requirement for some years. For other disciplines, intellectual disability health content is not yet a specified requirement of current accreditation standards although this may be supported by some peak professional organisations. For example, the Australian Nursing and Midwifery Accreditation Council advised that they are supportive of the Australian government making intellectual disability health a national priority area, which would then enable inclusion of intellectual disability health content to be mandated across all undergraduate nursing programs. Unless intellectual disability health content is a priority for professional and accreditation bodies it may not be included in university curricula.

An example of comprehensive integration across health degree programs, [The University of Sydney](#)

The University of Sydney has synthesised content about cognitive disability within and across their health degree programs so each discipline area has the *“freedom to develop and include cognitive disability content which was relevant to the particular program contexts...and it is seen as core to professional practice in an area, rather than an optional extra.”* The university undertook a faculty-wide review of content within undergraduate and postgraduate nursing, dentistry, and medical degrees. First year students participate in education about cognitive disability from the *“get-go”* into order to set up the *“lens”* through which they understand this area of practice. This progressive approach to education about intellectual disability health aims to increase students’ capacity for critique and reflection. One of the University of Sydney innovations has been the development of the [Disability and Participation](#) major housed in the Faculty of Medicine and Health. All occupational therapists will graduate with a major or minor in this field from 2024 onwards, and this study option is also available to physiotherapy, speech pathology, exercise science, Bachelor of Science (Health), audiology and radiation students. Several of the *Disability and Participation* courses are electives for other discipline areas such as medicine and dentistry. To overcome the challenge of the *“crowded curriculum”*, the Faculty seeks to integrate content across a range of courses, such as including a simulation script with someone with Down Syndrome or Cerebral Palsy in the Simulation Unit. This model provides an exemplar of faculty-wide integration of disability health content across programs and courses that could be showcased in the resource hub.

5. Identified Gaps

The gap analysis asked: Do current offerings meet best practice according to the dimensions identified in the scoping and literature review phases?

Each of the identified resources was assessed according to the following dimensions: whether the course was core or elective, timing of the course across the program, inclusive teaching approach, the content domains included in the curriculum, and type of learning outcomes for students. A summary of the gap analysis matrix is provided in accompanying file *ID Scoping and Gap Analysis_Gap analysis matrix*.

5.1 Overview

In Australia, each university develops its own program curriculum in accordance with accreditation body requirements. There is a resultant diversity in offerings within and between disciplines and this is evident in the findings of our scoping activities. As noted earlier, our specific focus was on stand-alone courses or units where the title or course outline indicated inclusion of intellectual disability health. In using this unit of analysis we have not identified relevant content that may be included within other courses. Such content does exist and several examples are highlighted in the sections below.

The majority of courses that included intellectual disability health content were core courses for the discipline area (66 of the 96 courses where this was able to be determined; Figure 2).

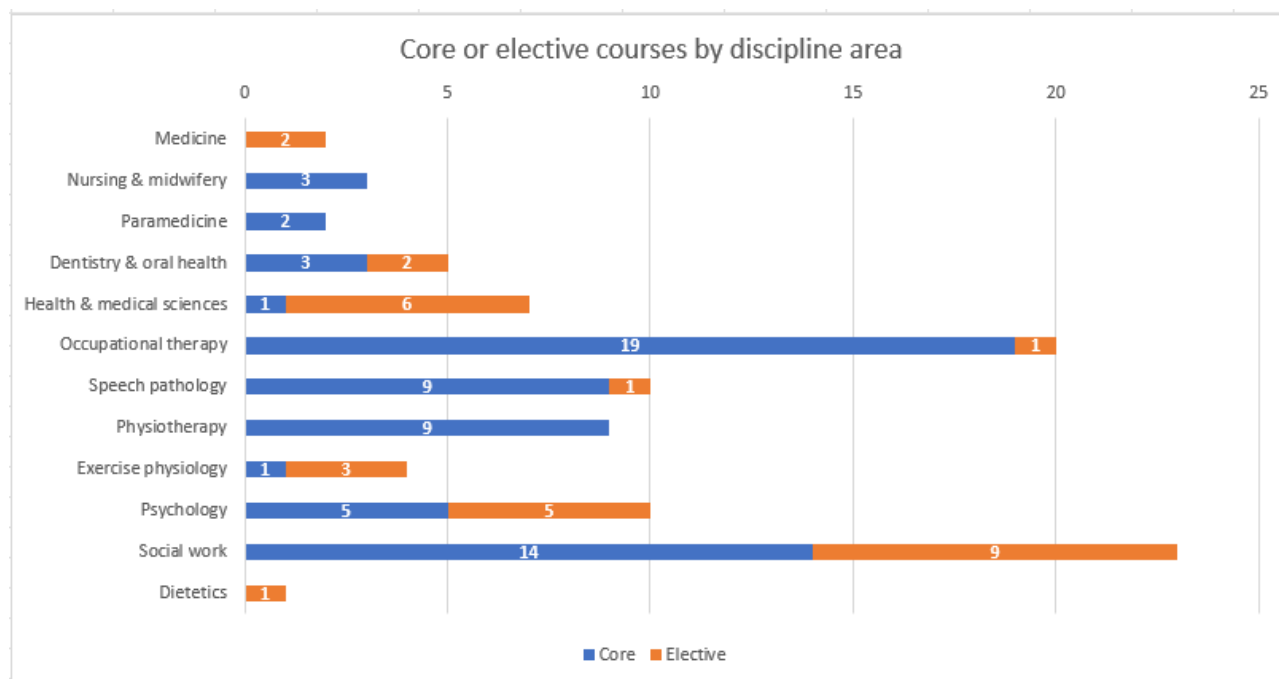


Figure 2: Number of core or elective courses with intellectual disability health content by discipline area

The content domains included within courses was highly variable (Figure 3). Based on the course information that was available for analysis, the most frequently included domain was 'Understanding the health of people with intellectual disability' (78 of 96 courses). Content relating to 'Coordination and collaboration' and 'Clinical care' was included in 37 and 29 courses respectively. Less frequently identified as content were 'Attitudes, values and beliefs' (20 courses), 'Responsible, safe and ethical practice' (22 courses) and 'Communication' (22 courses).

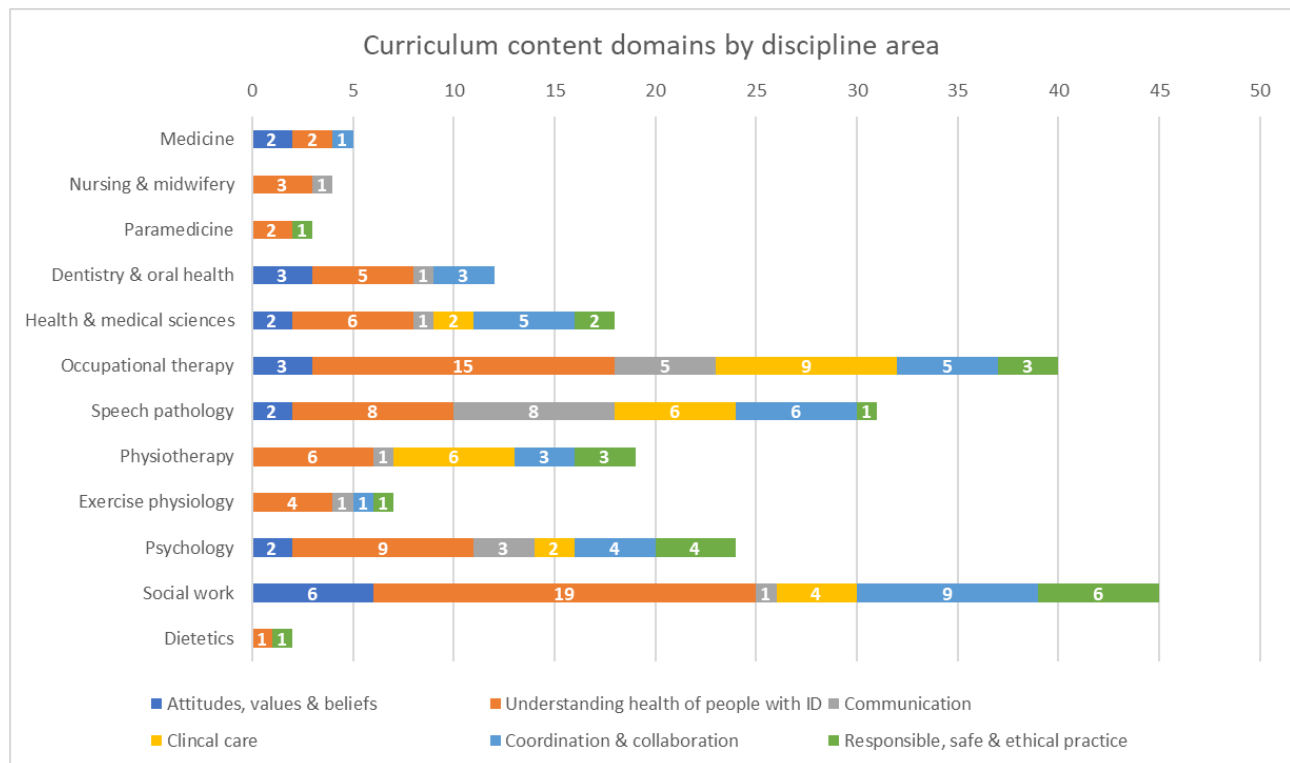


Figure 3: Types of intellectual disability health content domains taught within courses by discipline area

All courses were oriented towards increasing students' knowledge and awareness (Figure 4), with a much smaller proportion providing students with the opportunity to practise their knowledge and skills (23 of 96 courses) or apply the skills within a clinical or community setting (8 of 96 courses).

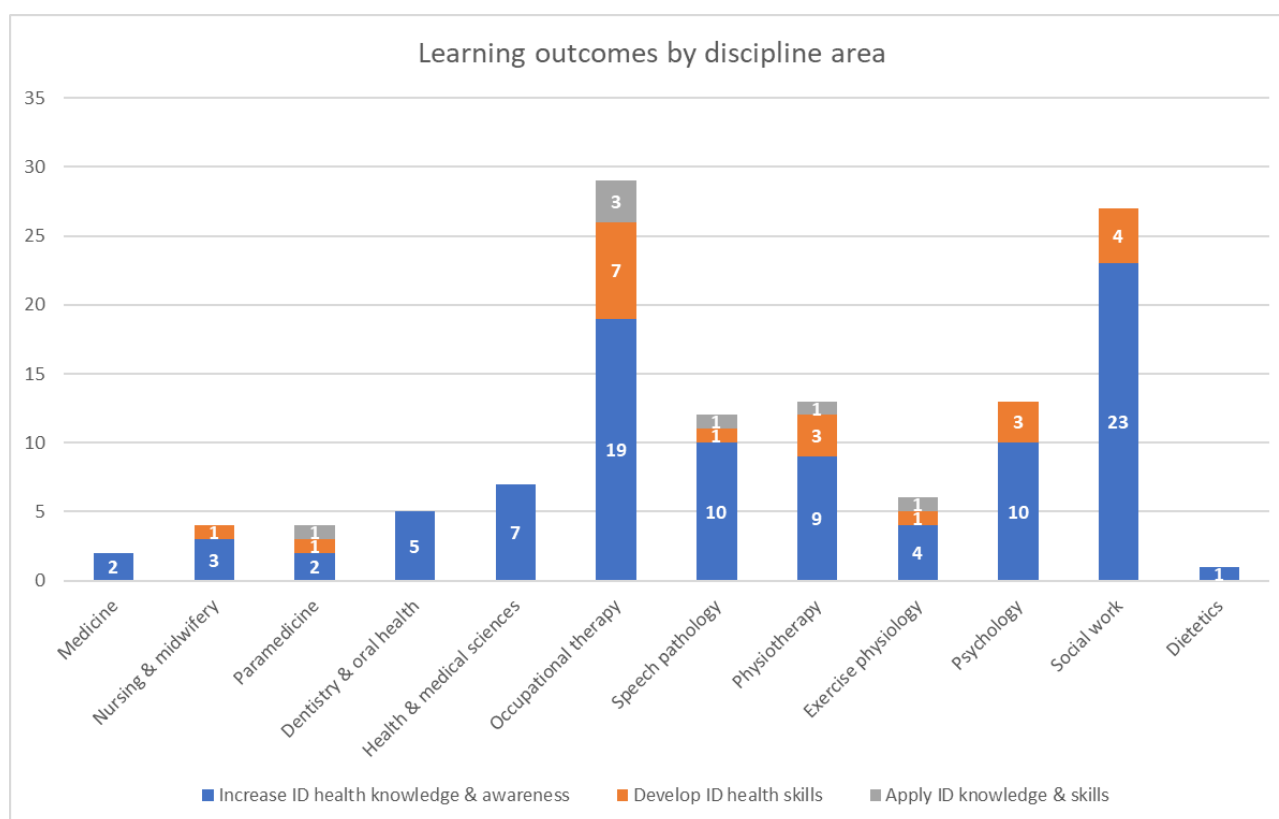


Figure 4: Types of learning outcomes by discipline area

Discipline specific findings

The following section provides a snapshot of stand-alone courses that are available within the various disciplines. As we have noted, within integrated programs there may be content relevant to intellectual disability health but not in the form of a dedicated course. Other methods would be needed to ascertain this “hidden” content.

5.1.1 Medicine

Two stand-alone courses were identified as available electives for medicine students (Bachelor of Science/Doctor of Medicine): Disability, Participation and Health and Disability and Lifespan Development. Both units were offered as a minor to medicine students as part of the *Disability and Participation* stream delivered by the University of Sydney. Both courses have an interprofessional focus, are offered as electives across a number of discipline areas and have a broader disability focus, i.e., the content is not specific to intellectual disability. Inclusive teaching is incorporated in these courses through the use of audio-visual media, patient educators and their families and supporters. Both courses include content areas such as, improving attitudes, values and beliefs towards people with disabilities, and enhancing understanding of the health of people with intellectual disability. Content areas such as appropriate communication, improving clinical care of people with disability or responsible, safe and ethical practice do not appear to be included in the current course offerings nor do they seem to include opportunities for practise of skills via role plays, simulations or placements.

Although these were the only stand-alone courses with dedicated inclusion of intellectual disability health content, relevant content is likely to exist in other forms within medical programs. For example, at The University of Queensland, the Queensland Centre for Intellectual and Developmental Disability includes in its mission the provision of educational opportunities through face-to-face teaching and contributions to courses. Learning outcomes include self-reflection on attitudes, values and their implications for health practice, ethics, patient-centred care and communication.

The Australian Medical Council Accreditation standards require medical programs to equip graduates with the ability to care for populations with diverse needs though intellectual disability is not specifically mentioned and the extent and nature of content is likely to be highly variable.

5.1.2 Nursing and Midwifery

Three courses offered by two universities were identified for nursing and midwifery. All included content about intellectual disability in the context of other types of disability and speciality areas. All identified courses also include content about provision of health care to diverse groups such as Aboriginal and Torres Strait Islander people in addition to people with disability. The two courses offered by the Western Sydney University adopt an inclusive teaching approach in their learning content through integration of audio-visual media and videos of people with disabilities. All courses include content related to enhancing understanding of the health of people with intellectual disability, with the Victoria University course also including content in developing communication skills when working with people with disability. None of the course offerings included topic areas such as, changing attitudes, values and beliefs; improving clinical care of people with disability; inter-sectoral coordination and collaboration or responsible, safe and ethical practice. The Victoria University course provides students with an opportunity to practise their skills via practical labs and clinical simulations; considered useful in the development of essential clinical skills while delivering care to people with intellectual disability.

5.1.3 Paramedicine

Two courses were identified for paramedicine; both are core courses offered at the undergraduate level and are oriented towards managing and caring for people with specific health care needs or vulnerability. It was not possible to ascertain from the course websites if people with disabilities or their families and supporters were included in the design or delivery of the course materials. Both the Central Queensland University and La Trobe University courses equip students with an understanding of the health of people from a variety of groups with specific health care needs and the La Trobe University course also includes content relevant to conducting responsible, safe and ethical practice. Neither course identifies topic areas such as, changing attitudes, values and beliefs; improving clinical care of people with disability; inter-sectoral coordination and collaboration or improving communication when caring for people with disabilities. The La Trobe university course includes a work-based placement for students, providing them with an opportunity to practise some of the skills learnt.

5.1.4 Dentistry and Oral Health

Five course offerings from four universities were identified for the dentistry and oral health discipline area, of which three are undergraduate level courses and two are dual degree programs. None of the included courses are specific to intellectual disability, having a broad focus on people with disabilities or other special needs. Three courses are core courses for dentistry students and are specific to oral health and advanced care in dentistry. The other two courses, both delivered by the University of Sydney are offered to students across various programs as electives as part of the

Disability and Participation stream. The University of Sydney courses incorporate inclusive teaching approaches including audio-visual media, patient educators and their families and supporters. It was not possible to determine information about inclusive teaching from the websites of the other three courses. All courses include content related to understanding the health of people with disabilities but none of the courses indicated inclusion of content relevant to responsible, safe and ethical practice or improving clinical care for people with disabilities. Three courses include content on changing attitudes, values and beliefs and improving coordination and collaboration. Content on improving communication skills is included in one course. None of the courses indicated the inclusion of opportunities for students to practise or apply their skills via role plays, simulation, or placements.

Special needs dentistry has strong endorsement from the Australian Dental Association and a more detailed review of programs would likely reveal hidden content that was not readily captured in our course-level approach.

5.1.5 Pharmacy

No relevant stand-alone course was identified in the desktop review. However, as for other disciplines, elements of content relevant to intellectual disability health may be included in some courses in ways that are not easily identified.

An example of highly relevant, but hidden, content that was identified through desktop research and not course searching is found in the University of Sydney 4th year course PHAR4811: Pharmacotherapeutics, which aims to develop students' "understanding of the use of medicines and related appropriate health measures in special patient populations (paediatrics, geriatrics, pregnancy, disability and Special Patient Groups)" and where "graduates able to support patient medicine use and maintain vigilance about medicines use in groups where specialised considerations apply to the use of medicines". A series of bespoke disability inclusion workshops have been developed around case studies, including one focused on a person with Down syndrome.

5.1.6 Health and Medical Sciences

Seven undergraduate courses from five universities were identified for the discipline area of health and medical sciences. None of the included courses were specific to intellectual disability and included a general focus on health and well-being in different contexts including communication in health and disability, and introduction to disability practice. All identified courses were offered as electives, except one core course offered to Bachelor of Disability and Developmental Education students by Flinders university. While it was not possible to determine the inclusive teaching approach for most courses based on the information available from the course websites, Charles Sturt University included families and supporters in their community advisory committee. In terms of the course content, all but one course included content on understanding the health of people with disabilities. Inter-sectoral coordination and collaboration was another frequently covered content area. None of the offered courses appeared to provide students with an opportunity to develop and apply their skills in a practice/placement or simulation context.

5.1.7 Occupational Therapy

Twenty courses were identified in this discipline area: fourteen undergraduate level and six postgraduate level courses offered by 14 universities. Two universities including The University of Queensland and University of South Australia offered multiple relevant units at both undergraduate and postgraduate levels. All identified courses (except one) were core courses in the occupational therapy programs and included intellectual disability health content in the context of content about other types of disability and topics areas such as social context and disability, neurological

rehabilitation, environmental adaptation, communication and diversity, intervention planning, and evaluation and reporting to enable occupation of individuals.

The occupational therapy courses incorporated inclusive teaching approaches in about a third of the courses offered at the undergraduate level, such as videos or presentations from people with lived experience with disability or from their families and supporters. At the postgraduate level, only one course specified an inclusive teaching approach using case materials and content provided by people with disabilities and disability advocates.

In terms of the curriculum content, the majority of courses (at both undergraduate and postgraduate level) included content related to understanding the health of people with disabilities, followed by clinical care. At the undergraduate level, coordination and collaboration (five courses), communication (four courses), changing attitudes, values and beliefs (three courses), and responsible safe and ethical practice (two courses) were less commonly included as topic areas. None of the courses at the postgraduate level included content related to attitudes, values and beliefs or inter-sectoral coordination and collaboration. All courses aimed to increase students' knowledge and awareness, with over a third providing students with an opportunity to practise skills via simulation (three undergraduate courses) or fieldwork (four postgraduate courses).

5.1.8 Speech Pathology

Ten courses from seven universities were identified for the discipline area of speech pathology; seven of these courses were offered at the undergraduate level and three at postgraduate level. While none of the courses offered to Speech Pathology students had a specific focus on intellectual disability either at undergraduate or postgraduate level, La Trobe university provided a course with an interprofessional focus - *Health and Well-being of people with Developmental Disabilities* - which is a core subject for qualifying degrees in social work, speech pathology and occupational therapy and is also offered as an elective across other discipline areas. Where indicated, all courses were compulsory for students of speech pathology with content specific to this discipline area, such as, technology in contemporary speech pathology, accessible and inclusive communication, alternative and augmentative communication, except one undergraduate level course which was offered as an elective with an interprofessional focus on aged care and disability.

Although it was not possible to determine on the basis of information available from the course websites of postgraduate courses if inclusive teaching was incorporated, four undergraduate level courses mentioned inclusion of patient educators and families and supporters, via audio-visual media such as videos of people with disability, guest lectures and presentations. In terms of the course content, while most undergraduate courses included content relevant to understanding the health of people with disabilities and communication, postgraduate courses had a focus on clinical care components. None of the postgraduate level courses included content relevant to changing attitudes, values and beliefs, or responsible, safe and ethical practice, perhaps assuming students to possess this knowledge through prior education, however these content areas were also least frequently included at the undergraduate level courses. Only one course, offered at undergraduate level by Macquarie University, gave students an opportunity to develop and apply their skills in practice by undertaking placements or role plays. The course involved a placement component in speech and hearing clinics and schools that cater to students with speech and learning disabilities, allowing students to further advance and practice their skills.

5.1.9 Physiotherapy

All nine courses identified in physiotherapy are core courses, with seven of these having a specific focus on physiotherapy-related topics such as physiotherapy assessment, movement analysis and treatment and management of clients with a variety of needs. All courses include content about different types of disabilities or have a broad focus across the lifespan. It was not possible to determine from the information available on the course websites whether inclusive teaching was incorporated in the course content (stakeholder feedback from the Notre Dame university confirmed that videos including people with disabilities are included in course delivery). Most courses include a component relating to understanding the health of people with disability including the application of various principles, models and policies and improving clinical care for people with disabilities (six courses). None of the courses identified content relevant to changing attitudes, values and beliefs. Two courses include clinical simulation as a teaching method (undergraduate course at Flinders University and a Masters level course at the University of South Australia).

5.1.10 Exercise Physiology

Four course offerings (by two universities) were identified for this discipline area; all offered at undergraduate level. All include content related to health care for people with a broad range of disabilities. One of the course offerings is a core exercise physiology course (UQ) and the other three have an interprofessional focus and are offered as electives to exercise physiology students (University of New England). Inclusive teaching methods involving presentation on the lived experience of disability from a guest speaker and their family is incorporated in the UQ course curriculum. All courses include content relevant to understanding the health of people with disabilities and the course specific to exercise physiology students also incorporates content areas about communication skills and learning responsible, safe and ethical practice skills. No courses included the content domains changing attitudes, values and beliefs or improving clinical care for people with disabilities, including ID. The use of simulated scenarios in the core exercise physiology course also provides students with an opportunity to practise the skills learnt.

5.1.11 Psychology

Four undergraduate level courses and six postgraduate level courses were identified. The undergraduate courses are all electives, have an interdisciplinary focus and the content is not specific to intellectual disability health. Aside from one elective course, all pre-registration entry courses are core courses. Topic areas are specialist to the discipline of psychology and include content related to psychological interventions, culturally responsive knowledge and skills, and neurodevelopmental and clinical disorders. Based on the information available from the websites it was not possible to determine for most courses whether inclusive teaching is incorporated as part of the course curriculum (stakeholder feedback from the Monash University undergraduate course noted input in course development by a staff member with lived experience of disability since childhood and other faculty members who are health professionals with skills and experience in service provision to people with disabilities and one undergraduate level course offered by the University of Queensland noted the use of audio-visual media and case examples to illustrate course concepts).

Two of the undergraduate courses include content related to understanding the health of people with disabilities. Changing attitudes, values and beliefs, and responsible, safe and ethical practice were covered by half of the courses. Postgraduate courses are more likely to include content on improving understanding the health of people with disabilities (all courses), and coordination and collaboration (three courses). None of the undergraduate level courses include content relevant to improving

clinical care for people with disabilities, and none of the postgraduate level courses included content in relation to changing attitudes, values, and beliefs around disabilities. All undergraduate courses aim to improve knowledge and awareness about different domains related to improving outcomes for people with disabilities, and none include role plays and simulations or clinical or community placements opportunities. Half of the Masters level courses involve a role play or simulation component, giving students an opportunity to practise their skills.

5.1.12 Social Work

The largest number of relevant courses was identified for the discipline area of social work, i.e., twenty-three courses from 17 universities. Fourteen of these courses were offered at undergraduate level and nine at postgraduate level. While most of these courses had a broad focus on disability, three courses (two undergraduate and one postgraduate level) had a specific focus on intellectual disability. One of these courses offered by La Trobe university has been mentioned previously under the discipline areas of speech pathology and occupational therapy (i.e., *Health and Well-being of people with Developmental Disabilities*), as being a core subject for these discipline areas at the undergraduate level. Edith Cowan University offers an undergraduate level course on *Social Inclusion and People with Intellectual Disability* and La Trobe University also offers an intellectual disability-specific course (i.e., *Fields of Social Practice*) at the postgraduate level.

While most courses offered at the postgraduate level are offered as core subjects (six courses), there is an equal distribution of courses being offered as core subjects or electives at the undergraduate level, with topics including scope and foundations of social work practice, social dimensions of disability, and disability and community practice. Although it was not possible to determine for most courses if inclusive teaching was incorporated as part of the course design or delivery based on the information available from the course websites, both undergraduate and postgraduate courses offered by La Trobe university mentioned inclusion of patient educators using audio-visual media, and/or testimonials from families and supporters. In terms of course content, understanding the health of people with disabilities was covered most frequently at both undergraduate and postgraduate level courses. Inter-sectoral coordination and collaboration was also frequently included as content area at the undergraduate level. Communication was one of the least covered areas, with no postgraduate level courses appearing to focus on this content and only one undergraduate level course covering content in relation to improving communication with people with disabilities. Relating to the development of students' skills and knowledge in a practice context, only one postgraduate course and four undergraduate level courses provided students with an opportunity to develop their skills beyond theoretical knowledge by using simulations, developing resources for different areas of practice, and case studies.

5.1.13 Dietetics

One elective course was identified; an interprofessional elective course on Health Care Ethics offered by Australian Catholic University. This course is also a core course offered to nursing and midwifery students. The course includes content relevant to understanding the health of people with disabilities and responsible, safe and ethical practice. Based on the information available on the website it was not possible to identify if inclusive teaching is incorporated as part of this course. The course aims to increase student knowledge and awareness.

Courses teaching health care ethics are another example of areas within curricula that may provide traces of content relevant to intellectual disability health, but which are not captured within course

outlines. Such courses have potential to incorporate education relevant to the Intellectual Disability Health Capability Areas.

5.2 Summary of gaps, opportunities, and resource needs

This section of the report turns to the question of: *What are the implications for the development of resources to support the integration of core intellectual disability capabilities in university curricula?*

The draft Intellectual Disability Health Capability Framework Elements (Box 1) set out the key knowledge, skills and attributes of a pre-registration health professions workforce that is prepared to provide high quality care to people with intellectual disability. Successful implementation of the Framework will require awareness raising and the provision of resources, tools, and guidance to assist educators and universities to integrate and assess the core capabilities within their curricula.

5.2.1 Overall summary of gaps and opportunities

Our scoping review and gap analysis has shone a light on the extent to which the draft Intellectual Disability Health Capability Framework is represented in existing pre-registration health professions courses. We have identified gaps as well as areas of strength and innovation.

Leverage expertise that exists in established centres

Areas of strong expertise exist within specific universities in the form of research centres or critical-mass research concentrations. These include (but are not limited to):

- Living with Disability Research Centre, La Trobe University
- Centre for Developmental Disability Health Victoria (CDDH), Monash University
- Department of Developmental Disability Neuropsychiatry (3DN), UNSW Sydney
- Centre for Disability Research and Policy, University of Sydney
- Queensland Centre for Intellectual and Developmental Disability, The University of Queensland

Educational resources produced by these centres are closely aligned with many of the Framework areas and are included in the best practice examples below. Opportunities exist to leverage the experience and expertise contained in these centres for the implementation and advancement of educational initiatives in intellectual disability health.

With expansion of their existing roles, they could potentially provide the coordination across programs and disciplines, support and train a pool of educators with lived experience of intellectual disability, as well as provide healthcare educator expertise for University programs beyond their own. Such an approach would ensure that there is an easily recognisable source of expertise for both healthcare practitioners in training and those already in the system.

Apply approaches in place in some existing disciplines

Similarly, some discipline areas are more likely to contain expertise and have as a focus person-centred approaches and communication. Occupational therapy, social work and speech pathology disciplines appeared more likely to offer courses that included a major emphasis on intellectual

disability health. The two courses identified as having a major focus relevant to intellectual disability health were: *Health and Wellbeing of People with Developmental Disabilities*, La Trobe University (a core first year course for occupational therapy, speech pathology and social work students) and *Social Inclusion and People with Intellectual Disabilities*, Edith Cowan University (a core first year course for social work students). Both courses are also offered as electives in other Programs. Further exploration of their content is warranted with a view to developing foundational material that would be highly relevant across most health professions disciplines.

Embed opportunities for cross-disciplinary learning and practice

Electives such as these that incorporate Framework elements and are designed for a cross-disciplinary student audience offer an opportunity to develop shared foundational materials to promote common curriculum content that is relevant to all disciplines but flexible enough to accommodate different timing and modes of delivery within particular university settings. Interprofessional practice is vitally important to improving health care for people with intellectual disability. Interprofessional education is a precursor to such practice, but our gap analysis indicated that its occurrence was rare. 'Joining up' of content through integration of different theoretical frameworks would promote common understandings across health disciplines and awareness of the importance of cross-disciplinary care for most people with intellectual disability.

Make learning that focuses on intellectual disability health overt

We found relatively few courses that focused specifically on intellectual disability health. Consistent with the published literature and with the views of many stakeholders, there is not a clear focus on intellectual disability and for most disciplines, content and emphasis appeared to be negligible, non-existent or hidden. At the same time, traces of intellectual health content were found throughout the curricula we examined. A small number of courses explicitly included intellectual disability in the context of other disabilities. Other courses may include some intellectual disability health content but without adequate prominence to be captured in our desktop searching or stakeholder engagement activities. Mapping specific Framework elements and areas to individual courses similarly was not possible without more detailed course materials.

Expand and foster stakeholder networks

Our scoping activities provided a unique and valuable opportunity to identify an expanded network of individuals and organisations from across the university, health professional, and disability sectors including many champions of the field (see accompanying file *ID Scoping and Gap Analysis_List of Stakeholders* for the full list of the organisations and individuals consulted, including identified champions). The response from stakeholders was notable and demonstrated a high level of openness, willingness, and readiness to engage in activities and partnerships to advance intellectual disability health education.

5.2.2 The way forward

Our findings support the need for a proposed online resources hub with materials that could be adopted by education providers to assist with integrating intellectual disability health content in their curricula. A resources hub should provide an online environment that encompasses a range of tools to raise awareness and support implementation of the Intellectual Disability Health Capability Framework. Some resources and activities may require a medium-term time horizon while others could be developed in the immediate to short-term.

The following table draws on evidence-informed principles and specific best practice examples that have been identified in earlier sections of the report and suggests practices and actions that could support universities to integrate aspects of the Framework into both new and existing curricula. Learning materials and courses that have been highlighted as exemplars in earlier parts of the report are cross-referenced as key sources of specific guidance.

Table 4: Suggested steps to address identified gaps

Identified gaps and what's needed	Steps and materials to be considered
<p><i>Summary information to support the Framework and that provides a practical and useable overview for university stakeholders about best practice in pedagogical approaches to improve intellectual disability health pre-registration education.</i></p>	<p>Develop summary resources for university stakeholders including those in senior leadership positions and course coordinators to support the Framework Implementation Guidelines. Relevant resources to develop could include:</p> <ul style="list-style-type: none"> • Succinct overview of principles in best practice intellectual disability health education and examples of practice in university settings, including: inclusive teaching approaches, key content areas (the Curriculum Framework), approaches to enable experiential learning opportunities, skills in interdisciplinary teamwork, progressive and systematic integration throughout training programs • Accompanying self-assessment tool to enable individual educators and broader faculty to reflect on how the Framework is being included and guidance and resources about possible actions to take (Agency for Clinical Innovation, Intellectual Disability Network provides a potentially useful example).
<p><i>Guidance to embed experiential learning and genuine participation of people with intellectual disability in educational initiatives.</i></p>	<p>Develop a resource that provides clear guidance about how the role of patient educator can be articulated, formalised, and embedded in ways that are beneficial to patients, students, and university program providers.</p> <p>This resource could include content about:</p> <ul style="list-style-type: none"> • why and how to engage people with intellectual disability in inclusive teaching • what inclusive teaching is and is not • approaches to payment structures for paid educators • the potential role of disability organisations in locating educators with interest and expertise. <p>Important also is guidance about best practice approaches to supporting and upskilling people with intellectual disability who wish to engage in shaping health professions education.</p>

Identified gaps and what's needed	Steps and materials to be considered
	<p>Disability organisations providing inclusion services that university educators could access include:</p> <ul style="list-style-type: none"> • <i>Health Ambassadors' Program</i>, Down Syndrome Australia • <i>Council for Intellectual Disability</i> – an organisation led by people with intellectual disability who provide inclusion services • <i>Queenslanders with Disability Network</i> <p>The guidance could also incorporate institutional approaches to enhance inclusion such as Consumer Advisory Committees to support the development and review of courses.</p>
<p><i>Opportunities for early positive exposure, communication and clinical skills training, and application of developing skills to occur progressively through all years of study.</i></p>	<p>Provide resources and case studies that support evidence-based pedagogical approaches to modular progression and integration across courses and programs from foundational introductory material, diverse opportunities to apply knowledge and skills, through to placements.</p> <p>Example resources include:</p> <ul style="list-style-type: none"> • Curriculum of Caring project • Case study from University of Sydney faculty review of education about cognitive disability and synthesis across programs and courses • Colbert and Kronk (2020) Consultant with Disability Simulation Program
<p><i>Guidance about how currently available high quality online resources could be used to provide education about the Capability Areas within university pre-registration education teaching.</i></p>	<p>Curate already-available online resources that provide evidence-based high quality foundational content about intellectual disability health aligned to the Capability Areas. Promote use of these resources to faculty leaders and course coordinators. Showcase key high-quality resources identified in this project and provide accompanying information about how each resource could be used to achieve learning outcomes within a teaching context. This will help support incorporation of these resources within courses, programs or faculties in the immediate and short term.</p> <p>Example foundational resources include:</p> <ul style="list-style-type: none"> • ABLEx series MOOC • Interactive educational resources, 3DN, University of New South Wales • Online training videos, Agency for Clinical Innovation, Intellectual Disability Network • Every Nurse's Business, Continuing Professional Development Program, PANDAA

Identified gaps and what's needed	Steps and materials to be considered
	<ul style="list-style-type: none"> • Access to quality healthcare for people with intellectual disabilities, micro-credential Central Queensland University
<p><i>A freely available interdisciplinary foundational level course with specific focus on Framework elements.</i></p>	<p>Incorporate Framework elements into all currently available resources allowing for differential orientation and alignment depending on the identified resource and discipline area. Develop an interdisciplinary foundational-level course with a major and specific focus on Framework elements to provide an 'off the shelf' resource for universities to incorporate into their courses, programs or faculties. This course could use existing resources that are freely available and with Creative Commons licensing and harness expertise from representatives from the providing organisations for these resources, and intellectual disability health experts who have developed similar courses already available, such as:</p> <ul style="list-style-type: none"> • <i>Health and wellbeing of people with developmental disabilities</i>, La Trobe University course • <i>Disability, Participation and Health</i>, University of Sydney course
<p><i>Guidance about currently available resources, and development of additional resources, to support skill development in Capability Areas within university pre-registration education teaching.</i></p>	<p>Provide resources to support university educators to provide opportunities to practise knowledge and skills within the Capability areas. Resources could include:</p> <ul style="list-style-type: none"> • Case studies of the development of simulation activities for students, including involving actors with intellectual disability • Provide simulation scripts that support skill development about provision of quality care for people with intellectual disability including: presenting health issues, communication needs, reasonable adjustments, collaborative interdisciplinary care, ethical practices and other practice domains. • Exploration of the potential use of currently available simulation Apps such as the 3D simulated training environment CheckUP • Exemplars from the Curriculum of Caring and Consultant with Disability Programs.
<p><i>Expansion of options for placements to include community sites including in NDIS settings. While providing important opportunities for students and awareness of the range of settings in which care</i></p>	<p>Identify and develop resources that support educators, students and people with intellectual disability in placements that provide opportunities to develop skills and experience with people with intellectual disability. Several projects and resources consider opportunities and skill development relevant for placements in NDIS settings, specifically:</p>

Identified gaps and what's needed	Steps and materials to be considered
<p><i>may occur, this may also help to address the reduced availability of clinical placements.</i></p>	<ul style="list-style-type: none"> • <i>Future Allies</i>, providing practical supports, insights and tools for allied health student placements in NDIS settings • <i>My Professional Practice Space</i> (CDDH) online learning system that prepared students and educators for placements within disability settings • <i>Building the Allied Health Workforce for an NDIS future</i>, MOOC, Flinders University • Case studies of innovation in the provision of placements, such as the on-site student led NDIS speech pathology clinic, Charles Sturt University
<p><i>Guidance about how currently available high-quality resources and opportunities for discipline-specific and advanced training and skill development can be used within university pre-registration education contexts.</i></p>	<p>Curate already available discipline-specific and advanced training resources to support immediate access by education providers.</p> <p>Discipline specific courses can be identified in our scoping review and include resources and courses developed for practising clinicians and students such as those provided by peak professional bodies and others (e.g., PANDAA, ADA and Australian Society of Special Care in Dentistry, Australian Psychological Society, The Emotions Clinic and Australian Physiotherapy Association).</p> <p>Develop accompanying guidance with suggestions as to how these learning resources could be incorporated into university courses and programs to achieve learning outcomes to help support incorporation of these resources into curricula.</p>
<p><i>Discipline-specific and advanced learning modules founded on Framework elements.</i></p>	<p>Liaise with discipline-specific providing organisations identified in the scoping review and other stakeholder consultation to explore the potential to develop, strengthen and expand more advanced discipline-specific education founded on the Framework elements will promote the development of such resources.</p> <p>Priority should be given to those disciplines identified in our review where less information is available about the nature and extent of intellectual disability health in course offerings.</p> <p>Consider the incorporation of multiple sources of relevant materials, including those provided by discipline-specific international organisations, those focused on key topic areas (e.g., care to Indigenous Australians, end of life care, sport and the criminal justice system), and opportunities for students to engage in research projects in this field (e.g., <i>Inclusive Research: A guide to doing research with people with disability</i>, The Disability Innovation Institute, UNSW).</p>

Identified gaps and what's needed	Steps and materials to be considered
<p><i>Multi-pronged activities to disseminate and promote the Intellectual Health Capability Framework and supporting resources hub to relevant stakeholders.</i></p>	<p>Disseminate and promote the resources hub to key stakeholders including the expanded network of engaged stakeholders identified in this project.</p> <p>Links to the resource hub can be disseminated through multiple pathways – Dept of Health, peak disciplinary bodies, via university leadership networks such as the Health Professions Education Standing Group, Medical Deans Australia and New Zealand.</p> <p>Develop and promote a webinar series involving intellectual disability champions across sectors and disciplines. Webinars could engage in diverse topic areas relevant to implementation of intellectual disability health education including:</p> <ul style="list-style-type: none"> • faculty leadership and coordination, and the opportunity to showcase different approaches across universities; • best practices in inclusive teaching approaches; • discipline specific webinars; • showcasing of learning modules, resources, or courses; and • specialist topic areas, including involvement by university research centres, and disability and health professional bodies. <p>Opportunistic promotion through websites, conferences and events hosted by other relevant organisations.</p>
<p><i>Mechanisms that assist university staff and other stakeholders to implement and sustain best practice in intellectual disability health education.</i></p>	<p>Promote opportunities for CPD through partnerships with health professional and disability organisations and peak bodies.</p> <p>Establish a community of practice using a collaborative virtual space where participants can share their knowledge, experience, areas of concern and problem-solving to enhance collaboration, overcome common barriers and promote sharing of resources across disciplines and universities.</p>

6. Conclusions and Recommendations

This scoping and gap analysis confirms a view in the published literature and more widely that many students entering health professions are likely to graduate with little or no training to support the needs of people with intellectual disability. Marked variation exists across universities and across disciplines.

There are examples of best practice within the literature and innovative educational initiatives are occurring in Australian undergraduate settings. Our scoping and gap analysis has identified a multitude of learning resources and courses that could inspire and promote integration of the core elements of the Framework. These include courses where possibilities exist for collaboration and potential sharing of resources, short courses, microcredentials and other online training, and resources that could help to support implementation of activities such as inclusive teaching and community placements. These offer an important starting point for building a stronger more consistent approach. Despite some inevitable tensions – such as crowded curricula, adequate resourcing, and questions about the place of intellectual disability within the broader disability agenda – goodwill and readiness exist. This was seen in the extent of stakeholder responses and engagement and the high level of interest, enthusiasm, and recognition of the importance of this area of health care practice. It is important to build on this momentum and the opportunities offered through cross-sectoral linkages between disability organisations, health professional bodies, and universities.

6.1 Actionable recommendations

The following actionable recommendations are required to achieve the outcomes of the Curriculum Development project. Central to these is the development of a set implementation support tools.

Communication and promotion of the Framework is an overarching priority.

- A set of tools that complement the Framework and support its implementation should be developed and disseminated widely. This should be done in consultation with stakeholders to ensure key issues are addressed in a comprehensive and implementable way.
- Examples of high quality educational resources that align with the Framework, including those that can be used off the shelf and those that can be adapted to specific discipline contexts should be collated and made available via an online resources hub.
- A self-assessment tool should be developed for use by individual educators or at wider university level to reflect on current course offerings against the Framework elements.

A strong foundation for stakeholder engagement already exists and further engagement efforts are likely to be well-received and beneficial to the development and dissemination of teaching innovation in intellectual disability health.

- Broaden and extend stakeholder networks and engagement processes and consider the establishment of a community of practice to share experiences and learning.
- Strategically target program leaders by discipline to capture intellectual disability health content that may be hidden or where significant gaps exist.

Experiential learning and genuine participation of people with lived experience of intellectual disability needs to be front and centre of undergraduate curriculum development and delivery. Patient involvement in health professional education can build confidence and communication skills and reduce stigma and negative stereotypes but this widely embraced ideal can be challenging to implement in practice.

- Priority should be given to developing clear guidance about the role of patient educator and how this role can be articulated, formalised, and embedded in ways that are beneficial to patients, students, and university program providers.
- Examples of good practice that are identified in this report offer a strong basis for the development of this guidance.

Interprofessional education is a precursor to intersectoral and interprofessional practice and all are vitally important to improving health care for people with intellectual disability.

- Emphasis should be placed on resources that extend beyond discipline-specific technical knowledge and skill.
- Resources that incorporate multiple frameworks and models of intellectual disability health should be made available to promote common understandings across health disciplines, the “joining up” of content, and awareness of the importance of cross-disciplinary care for most people with intellectual disability.

Options for placements should be expanded to include alternative non-traditional community options. While providing important opportunities for students and awareness of the range of settings in which care may occur, this may also help to address the reduced availability of clinical placements and opportunities for direct clinical contact.

- Establish clear guidance to support mutually beneficial relationships with placement sites, including the organisation, management and supervision of placements.
- Consider the compilation of a database that includes information about potential placement sites.

Mechanisms for supporting university staff to implement best practice intellectual disability health content are important.

- Opportunities to build capacity exist and should be explored further. Examples include CPD and information sharing in partnership with professional organisations and disability peak bodies and the harnessing of existing expertise through dedicated intellectual disability health research centres.
- Any recommended training initiative must be implementable and able to be tailored to local contexts. Guidance for implementation is needed along with sharing of successes and innovations. Pragmatic issues such as crowded curricula need to be addressed innovatively; resourcing and practicalities around mechanisms for payment are crucial; and processes to enable sharing of resources and good practice between universities will assist with sustainability.
- **Evaluation of immediate and longer term-outcomes** should be part of the implementation of educational initiatives to monitor their uptake and assess changes over time, including the impact of health care professions training on health outcomes for people with intellectual disability.

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Contact details

Assoc Professor Fran Boyle

P 07 3365 6806

E f.boyle@uq.edu.au

W issr.uq.edu.au

CRICOS Provider Number 00025B

ISSR Reference: ISSR295114

3346 2438

E issr.research@uq.edu.au W issr.uq.edu.au