



Faculty of Medicine, The Department of
Developmental Disability Neuropsychiatry 3DN

Renewal of Medical and Nursing Intellectual Disability Curriculum: Building Capacity in the workforce to meet the complex healthcare needs of people with intellectual disability

Ms Claire Eagleson
Project Officer
Department of Developmental Disability Neuropsychiatry
School of Psychiatry, Faculty of Medicine
University of New South Wales, Sydney
c.eagleson@unsw.edu.au

Dr Janelle Weise
Lecturer
Department of Developmental Disability Neuropsychiatry
School of Psychiatry, Faculty of Medicine
University of New South Wales, Sydney
j.weise@unsw.edu.au

Professor Julian Trollor
Chair, Intellectual Disability Mental Health
Head, Department of Developmental Disability Neuropsychiatry
School of Psychiatry, Faculty of Medicine
University of New South Wales, Sydney
j.trollor@unsw.edu.au

© Department of Developmental Disability Neuropsychiatry UNSW 10/01/20



UNSW
SYDNEY



DEPARTMENT OF
DEVELOPMENTAL
DISABILITY
NEUROPSYCHIATRY

Project Description

Australia's higher education sector plays a key role in preparing medical and nursing graduates to enter into the health workforce and meet the diverse healthcare needs of our population. However, most will graduate with little or no understanding of the specific healthcare needs of people with intellectual disability, a population that experiences a disproportionately high burden of disease and illness compared to the general population [1-4].

This project aims to renew intellectual disability health content in medical and nursing school curricula across Australia. The first stage involved an audit of curricula to determine the i) nature and amount of intellectual disability physical and mental health content that is delivered to medical and nursing students, and ii) how this content is taught.

Background

Approximately half a million Australians have an intellectual disability [5, 6]. Compared with the general population they experience very poor health status characterised by multiple morbidities [7], elevated rates of physical health problems [8], 2-3 times the prevalence of mental health disorders [4], and premature mortality from preventable causes [9]. 3DN's preliminary analysis of a state-wide linked dataset indicates that compared to the NSW population, people with intellectual disability experience mental health admissions that are twice as long and cost twice as much. The higher needs and costs, and the continuing poor health status of this population group means that urgent action is required to address this issue.

People with intellectual disability face barriers to accessing appropriate and timely healthcare, one of which is an ill-equipped health workforce in part caused by a lack of education in this practice area [10-13]. Lennox and Diggins [14] conducted the first audit of Australian medical school curricula in 1995, finding great variability and gaps in the amount and nature of intellectual disability education offered across universities. No such national audit of nursing schools had been undertaken. As the largest health professional group in Australia [15], nurses play an important role in the delivery of healthcare services to people with a disability, and until the late 1980s were the primary providers of care to people with intellectual disability [16]. However, following the transition to community care [17], and changes in the nursing curriculum to a generalised program, there has been a decline in the visibility of intellectual disability in registered nursing. Evidence suggests that there is limited coverage in undergraduate courses and a lack of postgraduate specialisation courses within nursing schools [18].

The composition of basic medical and nursing courses is mandated by the Australian Medical Council (AMC) and Australian Nursing and Midwifery Accreditation Council (ANMAC) respectively. Currently there is no specific requirement for graduates to gain attributes and capabilities associated with providing care to people with intellectual disability [19, 20]. As such, learning in this area is left up to chance and the commitment of individual educators. There is consensus among medical and nursing professionals, people with intellectual disability, their carers and advocates that the current curricula are inadequately preparing graduates to work with people with intellectual disability in the community [10, 12].

Reported aptitudes doctors and nurses commonly lack in the area of intellectual disability include communication with patients, and constructive attitudes and values [13, 21-23]. A lack of experience in the area of intellectual disability has been associated with low levels of confidence and poor attitudes towards this population [24]. Evidence suggests that the best time to encourage the development of positive professional attributes is during tertiary education [25, 26]. People with intellectual disability can have complex health needs that vary depending on their level of ability and cause of their intellectual disability. Health professionals therefore require content specific knowledge and an ability to make adaptations to practice to ensure that this population have access to the same quality healthcare within mainstream services as the general population [27].

Sustainable changes to curricula are essential if Australia is to meet both its national and international commitments to delivering equitable healthcare to people with intellectual disability. Australia's initial report on the implementation of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) stated that the Australian health system needs to be improved for people with mental illness and disability [28, 29]. The National Disability Strategy has set a clear priority for the universal equipping of health practitioners and services to have the capability to meet the needs of people with disability (Policy Area 6, pg 60) [30]. The Fifth National Mental Health and Suicide Prevention plan [31] also states that people with intellectual disability require a coordinated, accessible and person-centred approach across services.

There have been calls for improved education commencing in undergraduate study around intellectual disability for health professionals from groups such as the Council for Intellectual Disability and the Australian Association of Developmental Disability Medicine [32], and experts at two successive National Roundtables on the Mental Health of People with Intellectual Disability [33, 34]. To determine whether a renewal of intellectual disability content in medical and nursing curricula was indicated, and to identify gaps where future initiatives may be needed, national audits of what and how undergraduate medical and nursing students are taught about intellectual disability physical and mental health were conducted in 2014. This was the first step in a multi-stage strategy to renew medical and nursing intellectual disability curriculum to build capacity in the Australian health workforce.

Medical curriculum audit

Methodology

Twenty medical schools that provide AMC accredited medical degrees were invited to participate in the audit, with Deans from 14 universities agreeing to take part. Phase 1 involved an interview with the Dean's representative on the structure of the medical degree course. Intellectual disability content was identified in the curricula of 12 schools, with the course coordinators of those schools taking part in Phase 2 of the study. Phase 2 involved an online audit examining the quantity and nature of intellectual disability content, and the methods used to teach it. This included the number of hours of intellectual disability content taught, the practice

areas in which it was taught, teaching methods that were used, the professional background of educators, and whether people with intellectual disability were involved in the design or delivery of content (known as inclusive teaching).

Summary of key results

Nature of intellectual disability content taught (for full results see [Trollor et al, 2016](#))

- All 12 participating schools in Phase 2 offered some compulsory intellectual disability content. However, time spent teaching this content was minimal. A median of 2.55 hours of intellectual disability content was taught per compulsory teaching unit audited (compulsory subject that included some intellectual disability content). The majority of schools offered less than six hours of compulsory teaching across the whole degree (median = 5.8 h). Three schools provided the majority of compulsory teaching units containing intellectual disability content identified in the audit (64% of units).
- Six schools taught intellectual content within elective units, varying greatly in duration of teaching (from 1-222 h of content per unit).
- Intellectual disability content in compulsory units was most commonly taught in the practice areas of paediatrics, general practice, and psychiatry, while the least common areas were emergency medicine and sexual health. However, content in the key practice areas of general practice and psychiatry was still only taught in a third of participating schools.
- The most common discipline areas in which compulsory intellectual disability content was taught involved education around clinical assessment and management skills. Despite this group's high unmet health needs [8, 35] and significant health inequalities [36], only half of participating schools provided compulsory teaching relating to human rights issues, and disability and healthcare systems.
- Less than half the participating schools (n = 5) offered direct clinical contact with people with intellectual disability within compulsory units.

How intellectual disability content is taught (for full results see [Trollor et al, 2018](#))

- Lectures were the most frequent teaching method used (9 schools utilised lectures). There was a fair representation of practical and interactive teaching methods across some schools such as workshops, case-based learning, and a clinical day. Six schools used at least two different teaching methods across their compulsory units.
- The majority of course units that taught intellectual disability content used some form of student-centred learning such as problem-based learning or enquiry-based learning (which involves students, generally within groups, learning through the experience of solving set open-ended problems).

- Approximately 80% of compulsory units and 65% of elective units that contained intellectual disability content included assessment of this content (by examinations or assignments).
- Nine schools involved people with intellectual disability in the development or delivery of intellectual disability content within compulsory and/or elective units.
- Nine schools had staff members who specialised or had a particular interest in intellectual disability health. Schools who employed such staff members had on average more course units containing intellectual disability content than those without.
- Educators with a medical background taught the most units containing intellectual disability content (medical practitioners with a non-psychiatry background taught at 10 schools, while psychiatrists taught at 7 schools). However, education was also provided by professionals from other health backgrounds, providing at least a proportion of students with knowledge on intellectual disability from varied health perspectives. These included allied health professionals (6 schools), psychologists (4 schools), and registered nurses (2 schools).

Comparison of 1995 and 2014 audits

- Across the eight medical schools that participated in both the 1995 [14] and 2014 audits, the number of course units containing intellectual disability content has fallen (44 to 36 units), and there was a slight decrease in the median number of hours of intellectual disability content provided by each school (20.75 to 19.85 h). There was also a decrease in units that included assessment of intellectual disability content. However, there has been an increase in inclusive teaching, and the use of student-centred pedagogies.

Nursing curriculum audit

Methodology

The Deans of 34 nursing schools offering pre-registration degrees were invited to participate in the audit, with 31 responding that they would take part. In Phase 1, intellectual disability content was identified in the curricula of 15 schools. Course coordinators from these 15 schools completed the Phase 2 online audit detailing the quantity and nature of intellectual disability content, and methods used to teach it.

Summary of key results

Nature of intellectual disability content taught (for full results see [Trollor et al, 2016](#))

- 16 of the 31 participating nursing schools audited were *not* providing any intellectual disability content in their curricula.
- Of those that were, the content and teaching methods varied greatly between nursing schools. A small number of schools were providing the majority of the content, with three schools offering 50% of the course units that contained intellectual disability content.

- A median of 3.6 hours of intellectual disability content was taught per compulsory teaching unit audited. Curricula contained a median of 5.5 hours of compulsory intellectual disability education across the whole nursing degree. Only one school offered an elective unit (which offered 9 h worth of intellectual disability content).
- Nine participating schools provided compulsory intellectual disability content that covered both physical and mental health.
- The most common topics areas to include intellectual disability content were clinical assessment skills, and ethics and legal issues, while the least common were human rights issues, and preventative health. However, key topic areas such as clinical assessment and management skills were still only taught in fewer than a third of participating schools. Other important areas such as human rights issues and preventative health were taught in fewer still (each taught in 16% of participating schools).

How intellectual disability content is taught (for full results see [Trollor et al, 2018](#))

- Lectures were utilised most often to teach intellectual disability content (14 schools), followed by tutorials (12 schools), other methods such as e-learning, clinical placements, and simulation (10 schools), and workshops (4 schools). Fourteen schools were using more than one method of teaching across their units with intellectual disability content.
- Over three-quarters of units with intellectual disability content included some form of student-centred learning (enquiry- or problem-based learning).
- Ten units across seven schools included assessment of intellectual disability content.
- Only one school employed inclusive teaching (which involved a person with intellectual disability participating in role plays portraying a patient).
- Two schools included intellectual disability teaching in clinical settings, while five schools gave the opportunity for direct contact with people with intellectual disability (such as during clinics or group home visits).
- 40% of schools that taught intellectual disability content had an intellectual disability 'champion' (staff member who specialises in intellectual disability) and/or staff member with an interest in this area.

The final report for this project is available on our website [here](#).

Recommendations and proposed future steps

The audits highlight that at present, the majority of future nurses and doctors will graduate with inadequate or no understanding of the specific healthcare needs of people with intellectual disability. Without the development of targeted strategies to address this issue, the health inequalities experienced by this population are likely to continue. We recommend the following

steps to augment intellectual disability education content in Australian medical and nursing schools.

1. Development of a national Intellectual Disability Educational Framework and Implementation Toolkit for medical and nursing schools

The first stage would involve the engagement of key stakeholders including Medical Deans Australia and New Zealand, Council of Deans of Nursing and Midwifery, the Australian Medical Association, and the Australian Medical Council. Consultation would be undertaken with people with intellectual disability, support networks, students, curriculum coordinators, key academics and experts to determine minimum intellectual disability health content for curricula, synergies (for example, content that may be relevant across a range of topic areas or clinical settings), and additional resources to include in an implementation Toolkit. Utilising information from this consultation and findings from the curriculum audits, prototype Toolkits tailored for medical and nursing schools would be developed.

The Toolkits would provide university curriculum coordinators with i) suggested core intellectual disability content, ii) evidence-based teaching methods, iii) resources, and iv) suggested ways to incorporate this content into undergraduate/pre-registration curricula.

The Frameworks and Toolkits would cover the core aptitudes required for doctors and nurses to work with people with intellectual disability, while highlighting areas of need such as communication, attitudes and values.

2. Pilot of the prototype Toolkits and evaluation

Exemplar medical and nursing schools would be chosen to trial the implementation of the Toolkits and would be assisted with evaluation of the outcomes. Curriculum developers from each university would review curricula to determine where intellectual disability health content could be incorporated, and what teaching methods should be utilised. Educators would receive training around the new curriculum content/teaching methods. The roll-out and implementation of the Toolkits would be evaluated.

3. Roll-out of Toolkits across Australian medical and nursing schools

Refinements would be made before a nationwide roll-out across medical and nursing schools.

4. Inclusion of minimum capabilities in intellectual disability in medical and nursing standards

We also recommend the inclusion of minimum capacities in intellectual disability knowledge and skills in future revisions of the AMC *Standards for Assessment and Accreditation of Primary Medical Programs* and the ANMAC *Registered Nurse Accreditation Standards*.

References

1. National Health and Hospitals Reform Commission, *A Healthier Future For All Australians – Interim Report December 2008*. 2009, Commonwealth of Australia: Canberra.
2. AIHW, *Australia's health 2010. Australia's health series. no. 12. Cat. no. AUS 122*. 2010, AIHW: Canberra.
3. Einfeld, S.L., A.M. Piccinin, A. Mackinnon, S.M. Hofer, J. Taffe, K.M. Gray, D.E. Bontempo, L.R. Hoffman, T. Parmenter, and B.J. Tonge, *Psychopathology in young people with intellectual disability*. *Journal of the American Medical Association* 2006. 296(16): p. 1981-1989.
4. Cooper, S.-A., E. Smiley, J. Morrison, A. Williamson, and L. Allan, *Mental ill-health in adults with intellectual disabilities: prevalence and associated factors*. *The British Journal of Psychiatry*, 2007. 190(1): p. 27-35.
5. Australian Institute of Health and Welfare, *Disability prevalence and trends. Disability Series. AIHW Cat. No. DIS 34*. . 2003, AIHW: Canberra.
6. Wen, X., *The definition and prevalence of intellectual disability in Australia. AIHW Catalogue no. DIS 2*. 1997, AIHW: Canberra.
7. Cooper, S.-A., G. McLean, B. Guthrie, A. McConnachie, S. Mercer, F. Sullivan, and J. Morrison, *Multiple physical and mental health comorbidity in adults with intellectual disabilities: population-based cross-sectional analysis*. *BMC family practice*, 2015. 16(1): p. 1.
8. Beange, H., A. McElduff, and W. Baker, *Medical disorders of adults with mental retardation: A population study*. *American Journal on Mental Retardation*, 1995. 99(6): p. 595-604.
9. Trollor, J.N., P. Srasuebkul, H. Xu, and S. Howlett, *Cause of death and potentially avoidable deaths in Australian adults with intellectual disability using retrospective linked data*. *BMJ Open* 2017. 6:e013489.
10. National People with Disabilities and Carer Council, *Shut Out: The experience of people with disabilities and their families in Australia*. 2009, Commonwealth of Australia: Canberra.
11. Thompson, D., K.R. Fisher, C. Purcal, C. Deeming, and P. Sawrikar, *Community attitudes to people with disability: scoping project*. 2011, Commonwealth Australia: Canberra.
12. Lennox, N., J. Diggins, and A. Ugoni, *The general practice care of people with intellectual disability: barriers and solutions*. *Journal of Intellectual Disability Research*, 1997. 41(5): p. 380-390.
13. Cook, A. and N. Lennox, *General practice registrars' care of people with intellectual disabilities*. *Journal of Intellectual and Developmental Disability*, 2000. 25(1): p. 69-77.
14. Lennox, N. and J. Diggins, *Medical education and intellectual disability: A survey of Australian medical schools*. *Journal of Intellectual and Developmental Disability*, 1999. 24(4): p. 333-340.
15. Heath, P., *National review of nursing education 2002*. 2002, Commonwealth of Australia: Canberra.
16. Goddard, L., P.M. Davidson, J. Daly, and S. Mackey, *People with an intellectual disability in the discourse of chronic and complex conditions: an invisible group?* *Australian Health Review*, 2008. 32(3): p. 405-414.
17. Atkinson, F.I., *Experiences of informal carers providing nursing support for disabled dependants*. *Journal of advanced nursing*, 1992. 17(7): p. 835-840.
18. PANDDA, *Position Statement- Nursing Practice: Supporting People with Developmental/Intellectual Disabilities*. 2010, PANDDA: NSW.
19. Australian Medical Council Limited, *Standards for Assessment and Accreditation of Primary Medical Programs by the Australian Medical Council*. 2012, Australian Medical Council: Canberra.
20. ANMAC. *Registered Nurse Accreditation Standards*. 2012 [12 September 2017]; Available from: https://www.anmac.org.au/sites/default/files/documents/ANMAC_RN_Accreditation_Standards_2012.pdf.
21. Weise, J. and J.N. Trollor, *Preparedness and training needs of an Australian public mental health workforce in intellectual disability mental health*. *Journal of Intellectual and Developmental Disability*, 2017: p. 1-10.

22. Sahin, H. and A.D. Akyol, *Evaluation of nursing and medical students' attitudes towards people with disabilities*. Journal of Clinical Nursing, 2010. 19(15-16): p. 2271-2279.
23. Tervo, R.C. and G. Palmer, *Health professional student attitudes towards people with disability*. Clinical Rehabilitation, 2004. 18(8): p. 908-915.
24. Thompson, T.L.C., K. Emrich, and G. Moore, *The effect of curriculum on the attitudes of nursing students toward disability*. Rehabilitation Nursing, 2003. 28(1): p. 27-35.
25. Campbell, F.K., *Medical education and disability studies*. Journal of Medical Humanities, 2009. 30(4): p. 221-235.
26. Piachaud, J., *Teaching learning disability to undergraduate medical students*. Advances in Psychiatric Treatment, 2002. 8(5): p. 334-341.
27. Department of Developmental Disability Neuropsychiatry, *Intellectual Disability Mental Health Core Competency Framework: A Manual for Mental Health Professionals*. 2016, NSW Ministry of Health: Sydney.
28. UN General Assembly, *United Nations Convention on the Rights of Persons with Disabilities, 13 December 2006, A/RES/61/106, Annex I*. 2006, UN General Assembly: New York.
29. Attorney-General's Department, *Implementation of the Convention on the Rights of Persons with Disabilities: Initial reports submitted by States parties under article 35 of the Convention (Australia)*. 2010, Attorney-General's Department: Canberra.
30. Commonwealth of Australia, *2010-2020 National Disability Strategy: An initiative of the Council of Australian Governments*. 2011, Commonwealth of Australia: Canberra.
31. Commonwealth Government Australia, *The Fifth National Mental Health and Suicide Prevention Plan*. 2017, Commonwealth of Australia Department of Health: Canberra.
32. Productivity Commission, *Australia's Health Workforce*. 2005, Productivity Commission: Canberra.
33. NSW Council for Intellectual Disability, *National Roundtable on the Mental Health of People with Intellectual Disability Communique*. 2013, NSW CID: NSW.
34. Department of Developmental Disability Neuropsychiatry UNSW Sydney, *Recommendations from the National Roundtable on the Mental Health of People with Intellectual Disability 2018*. 2018, Department of Developmental Disability Neuropsychiatry: Sydney.
35. Sutherland, G., M.A. Couch, and T. Iacono, *Health issues for adults with developmental disability*. Research in Developmental Disabilities, 2002. 23(6): p. 422-445.
36. Emerson, E., S. Baines, L. Allerton, and V. Welch, *Health inequalities and people with learning disabilities in the UK: 2012*. Durham: Improving Health & Lives: Learning Disabilities Observatory, 2012.