Aust. Educ. Res. (2011) 38:73–93
DOI 10.1007/s13384-010-0002-8

ORIGINAL PAPER

Access and participation in higher education of students with disabilities: access to what?

Janette Ryan

Published online: 19 February 2011

Abstract In 1991, the Australian Government designated students with disabilities as one of the six equity groups that were under-represented in higher education. Since that time, there has been only a modest increase in enrolments of students with disabilities despite government polices and funding of disability support services and programs. People with disabilities comprise 20% of Australia's population but only account for 4% of university enrolments. Despite the existence of the Australian Disability Discrimination Act (DDA) (1992) and the introduction of the Disability Standards for Education in 2005, negative attitudes about students with disabilities by university lecturers continue to exist. Research into the knowledge, attitudes and experiences of staff, especially in practice-based courses such as nurse education, reveals that university staff, practicum supervisors and even some disability staff, are unaware of their responsibilities under the legislation and that teaching staff continue to hold negative attitudes towards students with disabilities. This article reports on research that investigated the barriers facing such students in nursing courses, in particular in clinical placements. It shows that a lack of understanding of legislative and institutional requirements underlies negative attitudes about students with disabilities, especially in practicum-based courses.

Keywords Equity · Access · Participation · Students with disabilities · Nurse education · Curriculum and pedagogy

Background

Students with disabilities have been designated as one of the six equity groups under-represented in universities in Australia for almost 20 years. The six equity

J. Ryan (✉)
Monash University, Melbourne, Australia
e-mail: janette.ryan@monash.edu

groups designated under the Australian Government's *A fair chance for all* policy (DEET 1990a, b) in 1990 as being under-represented in universities were:

- People from low socio-economic backgrounds
- People from rural or isolated areas
- People with a disability
- People from a non-English speaking background
- Indigenous people
- Women, especially in non-traditional areas of study and higher degrees

Despite the provision of significant Government equity policies and funding, the participation rates of students with a disability have not increased significantly over this period. Students with disabilities are heralded, however, as one of the few equity groups that have increased its rate of participation while overall there has been a clear failure of policy to increase the university participation rates of equity group students. The former Federal Minister for Education, Science and Training, the Hon Brendan Nelson, acknowledged this failure in the Higher Education Report for the 2004 to 2006 Triennium by stating: 'With the exception of women and students with disabilities, however, the rate of participation [for all equity groups] has not changed a great deal' (p. 15). As stated in this report, students with disabilities accounted for 1.9% of the university student population in 1996. By 2006, enrolment of students with disabilities had risen to 3.6%.

Although this increase looks significant (i.e. almost a doubling of the figure), when compared with the proportion of people with disabilities in the general population comprising around 20% (Australian Bureau of Statistics 2005), this increase still falls far short of a true reflection of the proportion of people with disabilities within the general population. So although there has been a small increase in the proportion of students with a disability participating in higher education, this isn't enough. A focus on an increase in figures alone does not convey the true extent of the continuing under-representation of people with disabilities in higher education. It must be noted, however, that disability is self-reported by students usually at enrolment and there is evidence to suggest that the number of students with disabilities in higher education is probably under-reported (Barr et al. 1996; Payne and Irons 2003; Smith et al. 2000) due to the stigma and fear of disclosure (McLean et al. 1998); lack of awareness of support services (Ryan and Brown 2005); and confusion around definitions (Gale 2000; Ryan and Brown 2005).

Although there has been a clear policy framework and corresponding rhetoric around the need to ensure that higher education is accessible for people with disabilities through Australian Government equity policies such as *A fair chance for all* (1990) and *Equality, diversity and excellence* (1996), these policies have failed to have a major impact upon teaching and learning practices within universities. This is despite the fact that the Federal Disability Discrimination Act (1992) (Commonwealth of Australia 2010a) made discrimination on the grounds of disability unlawful, and the Disability Standards for Education introduced in 2005 (Commonwealth of Australia 2010b) require universities to make provision to ensure equal access and participation for people with disabilities. The Disability

Standards for Education, formulated to provide advice to education providers about their responsibilities under the legislation, state:

> An education provider is required to make any decisions about admission, enrolment or participation on the basis that reasonable adjustments will be made where necessary so that the student with disability is treated on the same basis as a student without the disability. (p. 4)

Disability is broadly defined under Section 4 of the Commonwealth Disability Discrimination Act (1992) which states:

Disability, in relation to a person, means:

(a) total or partial loss of the person's bodily or mental functions; or
(b) total or partial loss of a part of the body; or
(c) the presence in the body of organisms causing disease or illness; or
(d) the presence in the body of organisms capable of causing disease or illness; or
(e) the malfunction, malformation or disfigurement of a part of the person's body; or
(f) a disorder or malfunction that results in the person learning differently from a person without the disorder or malfunction; or
(g) a disorder, illness or disease that affects a person's thought processes, perception of reality, emotions or judgment or that results in disturbed behaviour; and includes a disability that:
(h) presently exists; or
(i) previously existed but no longer exists; or
(j) may exist in the future (including because of a genetic predisposition to that disability); or
(k) is imputed to a person.

As can be seen in sub-sections (f) and (g) above, the definition includes people who may learn 'differently' which can be interpreted to include 'hidden' disabilities such as learning difficulties and psychiatric illness as well as those with physical disabilities. The DDA and the Education Standards require higher education institutions and individual lecturers within them to make reasonable 'adjustments' to curriculum design, accreditation and delivery, as stated in sub-section 1 of Section 6.2 of the Standards under 'Standards for Curriculum Development and Accreditation and Delivery':

> (1) The education provider must take reasonable steps to ensure that the course or program is designed in such a way that the student is, or any student with a disability is, able to participate in the learning experiences (including the assessment and certification requirements) of the course or program, and any relevant supplementary course or program, on the same basis as a student without a disability, and without experiencing discrimination. (Commonwealth of Australia 2010b, p. 23)

Despite these initiatives and the clear requirement that students with disabilities should be able to participate in teaching and learning contexts and activities 'on the same basis as a student without a disability, and without experiencing

discrimination', there has been little examination by universities of the backgrounds, needs and expectations of students with disabilities in terms of curriculum and pedagogy. There has been very little attempt to address more endemic and systemic aspects of teaching and learning practices relating to attitudes, values, systems and structures that can act to perpetuate and produce educational disadvantage for people with disabilities. Although various equity policies and support services for students with disabilities are commonly offered by universities, and much work has been done by equity and disability officers and academic researchers in terms of identifying the learning and support needs of students in equity groups generally, it seems fair to state that equity in higher education in Australia has received less attention until very recent times.

The Bradley Review of Higher Education (Bradley et al. 2008) pointed out that Australia was at the forefront of equity policies in the early 1990s but that higher education participation rates have now fallen behind other OECD countries and Australia is becoming less competitive as a result. Citing a 2008 study by the National Centre for Social and Economic Modeling, the Review pointed out that, 'over the working lifetime of a university graduate the financial gain generated from income is more than $1.5 million or 70% more than those whose highest qualification is Year 12' (p. 27). According to the Australian Bureau of Statistics (2003), people with a disability are less likely to have completed a higher educational qualification than those without a disability, with one in five people aged 15–64 years living in households where there is no disability holding a bachelor degree or higher, compared with one in eight people (13%) with a disability. The lower participation rates in higher education of people with disabilities clearly have economic implications for those who may not be able to gain access or participate successfully in higher education due to their disability. Bardsley (2007) echoes the concern about economic impacts on individuals by arguing that democratic pedagogy and curriculum is required for students from disadvantaged backgrounds to be able to succeed academically as they are also the most vulnerable to economic changes such as those brought about by globalisation. There are therefore both economic and moral imperatives, such as equity and social justice concerns, for seeking to increase participation and completion rates of equity groups, not only for individuals but for the nation. The Bradley Review pointed out this failure of policy and the need for increased investment in higher education:

> The current policy and funding settings have not led to more equitable higher education outcomes in Australia for under-represented groups in terms of enrolments in universities … the quantum of funds provided has been insufficient to make significant headway in improving participation from under-represented groups. (p. 36)

The Bradley Review recommended increased government investment in higher education to close this gap and argued that the discourses in Australian higher education of 'equity' and 'excellence' are not in conflict, as has sometimes been assumed, but are in fact complementary. Gilles (2008) argues, however, that the conflating of discourses of 'excellence for all' and quality management with egalitarian discourses has 'led to failures to distinguish between the goals of quality

management and the ends of egalitarianism and fails to close the attainment gap' (p. 685).

In a speech to the Universities Australia conference on 4 March 2009, the Hon Julia Gillard, Deputy Prime Minister at the time, and now Prime Minister acknowledged the 'pivotal importance' of higher education for improving social inclusion and the 'primary importance of students' in higher education. She announced the Government's intention to redress the years of government neglect of higher education and equity and participation concerns, in particular for students from low socioeconomic backgrounds.

On 11 May 2010, as Minister of Education, Julia Gillard announced new guidelines for the Higher Education Participation Partnerships Program (HEPPP) which replaced the Higher Education Equity Support Program. This new program provides funding for universities to increase access and participation rates for students from low socioeconomic backgrounds, indigenous students, and students with a disability (DEEWR 2010). The program aims to increase not only access and participation rates of the identified groups but, importantly, also retention and completion rates. This points to the need for good outcomes for students with disabilities not just through the provision of extra support services but also through teaching and learning practices and initiatives. Funding under the new program is partly performance-based 'to encourage higher education providers to implement strategies to attract and support domestic students with a disability' (DEEWR 2010, p. 22).

The renewed focus on equity issues since the Bradley Review and the Australian Government's response to the review as seen in the increased allocation of funding to universities under the new HEPPP program should prompt a renewed focus on not just access to higher education but also issues of retention, participation and completion rates. Aspects of university teaching and learning can act to inhibit students with disabilities' full inclusion and opportunities for completion and success which go beyond issues of access. Students with disabilities not only have less access to higher education, but also continue to report aspects of dissatisfaction with their learning experiences while they are studying. Even when people with disabilities have managed to gain access to university, they often find that the promise of equal opportunity is not met.

Students with disabilities are generally the most negatively viewed and described of all of the 'different' groups of students in higher education in terms of their abilities (Ryan 2002) and negative experiences and attitudes continue to be reported among students and staff (Ryan and Brown 2005; Ryan and Struhs 2004). Instead, institutional and teacher responses are generally characterised by an expectation that students need to develop compensatory strategies to remediate the effects of their learning 'deficits' in order to achieve success (McLean et al. 1995; Smith et al. 2000). This 'deficit' view means that the onus is on the individual student to participate in extra-curricular activities organised through often ad hoc and inconsistent approaches to the provision of student academic support services. There is very little examination of how well higher education teaching and assessment practices cater for their learning needs or how such students experience their learning environments (Heubeck and Latimer 2002; Ryan and Brown 2005; Ryan

2005). Universities have been slow to understand and respond to the changing learning needs of their students (Gale 2000) and there is very little understanding amongst teaching staff of the nature of disabilities and their impact on learning (Heubeck and Latimer 2002; Noble and Mullins 1999; Ryan and Brown 2005) and indeed the role played by teaching and assessment practices in causing or aggravating students' learning difficulties (Ryan and Brown 2005; Ryan 2005).

These problems were acknowledged in a report to the Commonwealth Department of Education, Science and Training (DEEWR 2009), entitled *A New Approach to Improving Education and Training Services for Tertiary Students with Disabilities*. This report states that the current model of provision for students with disabilities produces disability services 'where staff are caught up in a cycle of service provision that is time consuming, highly administrative and which does little to produce long-term change in the equitable provision of education services'. The report argues for a move away from the reactive approach of the current support model to an inclusive and proactive perspective that focuses on the learning environment and that investigates the attitudes of teaching staff to disability.

Previous Government equity policies and practices focused on measurement and reporting of equity and access statistics by higher education institutions and were not concerned with teaching and learning practices and how they might act to either facilitate or inhibit the full participation of students with disabilities and hence their opportunities for retention and success. Universities often put much effort and resources into annual equity reports and developing Disability Action Plans, for example, yet the current figures show the continuing lack of major impact of these initiatives on participation rates. Hurst (2008) similarly warns that the recent changes to anti-discrimination legislation in the United Kingdom which require higher education institutions there to devise a Disability Equity Scheme will result in a diversion of staff resources and time away from developing more inclusive teaching and learning practices. Hurst points to the urgent need for continuing professional development of staff in promoting inclusive teaching practices in their classrooms. In Australia, attitudinal barriers among university teaching staff continue to inhibit the full inclusion of students with disabilities, with staff often being ignorant of their responsibilities under disability legislation and sometimes acting counter to the intention of university policies and the legislation.

Changing practices and attitudes

Several studies undertaken by the author and colleagues over the past decade (for example, McLean et al. 1998; McLean et al. 1999; Ryan and Brown 2005; Ryan and Struhs 2004; Ryan et al. 1998; Struhs and Ryan 2002; Young and Ryan 1998) have shown that students with disabilities continue to report dissatisfaction with aspects of their courses, and sometimes very negative attitudes towards them by teaching staff including hostility and discrimination (McLean et al. 1998; Ryan and Struhs 2004). Studies elsewhere have reported similar negative attitudes among teaching staff and regret by students over disclosing their disability (Ashcroft et al. 2008;

Payne and Irons 2003; Morris and Turnbull 2007; White 2007; Morris and Turnbull 2006). Although under the DDA, universities are required to provide equal access to higher education courses, regardless of disability, and to provide 'adjustments' for such students to afford them the same opportunities as other students, many lecturers are unaware of their legislative and institutional responsibilities, placing their students at a disadvantage and exposing their university to complaints of discrimination under the legislation.

This lack of awareness of the requirement to provide reasonable adjustments for students with a disability is especially the case in courses incorporating a practice-based component, such as nursing education. Many university staff continue to believe that a person with disabilities can be excluded from enrolling or continuing a course if their disability might impact on their ability to enter the profession for which they are training (Ryan and Struhs 2004). They are unaware that the 'core requirements' standard in employment in the DDA does not apply to education provision. In these courses, students can be prevented from successfully completing their course as they can experience difficulty with the practical component which is ultimately linked to the right to practise in the profession. Where professional or registration bodies stipulate that certain competencies need to be met and demonstrated before full practising rights in the profession are granted, universities are required to certify that a student has demonstrated such competencies. This can place universities in a difficult situation. They may be torn between the requirements of registration bodies and industry and the needs of their students with disabilities, who may require adjustments or accommodations to facilitate the demonstration of such competencies, typically through a practical professional placement.

Several studies have focused on nursing education as one area where a student's disability may impact on their ability to successfully undertake the conventional practical placement (Ashcroft et al. 2008; Christensen 1998; Colon 1997; Helms and Weiler 1993; Lord and Willis 1997; Magilvy and Mitchell 1995; Murphy and Brennan 1998; Richhariya-Leahy 2000: Shellenbarger 1993; Watson 1995; Wright 1997).

This article reports the results of a survey of university staff and students' knowledge of the legislative responsibilities of universities under the DDA and their attitudes towards the inclusion of students with a disability in nursing education programs. It included nursing education students and teaching and clinical placement staff at three Victorian universities, relevant staff at the universities' sites of clinical placements, and university disability officers, specifically in relation to the clinical placement in nursing education courses and student disability issues. This survey investigated the knowledge, attitudes and experiences of these stakeholder groups regarding students with disabilities undertaking the nursing practicum (further details of the wider aspects of the study can be found in Ryan and Struhs (2004)). The study drew on socio-political theories of disability. This involved a shift in focus away from individuals and their 'deficits', towards institutions, and examined how institutional teaching and learning policies and actions can both implicitly and explicitly inhibit the participation and success of students with disabilities at university.

Socio-political model of disability

A consequence of the 'deficit' view of students with disabilities mentioned above is that people with disabilities can become a 'marginalised non-ethnic minority group' (Bickenbach 1996, p. 12), with the focus being on the individual rather than the educational system that 'perpetuates and sometimes produces disadvantage' (Christensen and Rizvi 1996, p. 3). The inclusive education movement challenges such 'deficit' views of students (Ainscow 1999; Corbett 2001; Slee 2001) by embracing the socio-political model of disability (Barnes et al. 2002; Davis 1997). This model shifts the focus away from the 'problems' of individual students, to examining how teaching and curricula practices might be problematic for some students, particularly for those who are educationally disadvantaged or labeled as 'at risk' (Ainscow 1999, 2001). It draws attention to not what is 'wrong' with students but rather what is 'wrong' with the educational institution (Riele 2006).

The socio-political model of disability views disability not as an inherent, medically-defined feature of an individual but as the product of socially constructed environments and attitudes, which result from the interaction between the individual's physical or mental status and their socio-political environment. This view rejects the conventional 'pathologising' of individuals (Slee 1998) perceived to be 'deficient' or 'deviant' in some way (Gee 1996, 2001; Rizvi and Lingard 1996; Smith 1999). Smith (1999) refers to this as 'cultural cartography', the drawing of borders around those considered to be 'normal', and subsequently to the labelling of those outside the curve as 'deviant', thus, according to Davis (1995), producing a 'hegemony of normalcy'. In contrast, a conventional 'medical' model of disability (seeing disability as an inherent medical condition of the individual) tends to be dominant in the areas of nursing and nurse education (Ashcroft et al. 2008; Marks 2007; Moore 2004).

Institutionalised 'habitus' (Thomas 2002) and institutionalised 'ableism' (Hehir 2002; Madriaga 2007) means that 'the pervasiveness of…ableist assumptions in the education of [people] with disabilities not only reinforces prevailing prejudices against disability but may very well contribute to low levels of educational attainment and employment' (Madriaga 2007, p. 1). Normative assumptions about the 'ideal nurse' can be seen to influence decisions about who should participate in undergraduate nursing courses, as notions of able-bodiedness are strongly emphasised, and illness, disability and physical frailty are viewed as conditions requiring remediation.

Hehir (2002) quoting Rauscher and McClintock (1996) defines ableism as:

> a pervasive system of discrimination and exclusion that oppresses people who have mental, emotional and physical disabilities. Deeply rooted beliefs about health, productivity, beauty, and the value of human life, perpetuated by the public and private media, combine to create an environment that is often hostile to those whose physical, mental, cognitive, and sensory abilities…[which] fall out of the scope of what is currently defined as socially acceptable. (Hehir 2002, p. 3)

While this overtly discourages people with disabilities from entering nursing courses, covert structures within the programs themselves, in particular structures within the clinical component of undergraduate nursing programs, ensure that students with disabilities are less likely to succeed in their attempts to become registered nurses. The clinical component of undergraduate nursing programs is typically designed as a 'one-size-fits-all' model, with full able-bodiedness being assumed and therefore seen as something that is not only desirable but essential. To validate this assumption, a narrow interpretation of professional competencies is made and a series of apparently essential requirements are set up which may be impossible for students with disabilities to complete. This occurs despite the reality that as graduates they may never again be required to perform these specific requirements depending upon the area of nursing within which they later choose to practise.

Methodology

The study was designed using a mixed methods approach to survey the various stakeholders groups involved in the participation of people with a disability in nurse education courses and in particular in the clinical placement as part of these programs. Stakeholders surveyed included undergraduate student nurses, their lecturers and their clinical educators (placement supervisors), nurse clinicians, and university disability practitioners. The survey instruments included a questionnaire, focus groups and individual interviews. Since the purpose of the questionnaire was primarily to gain knowledge amongst the participants of the requirements of the DDA and their responsibilities, and their attitudes towards students with disabilities in nurse education courses, which is the focus of the current article, the questionnaire responses are mainly reported here. Four focus groups and five individual interviews explored in more depth the issues arising from the questionnaire responses as reported below, and a sample of their responses relating to the issues arising from the questionnaire are also reported briefly. For a further discussion of these findings, see Ryan and Struhs (2004).

The questionnaire was developed by an eight-member expert group of nurse education academics and university disability and equity officers at three Victorian universities and was designed to cover disabilities and conditions that they may typically encounter in their professional experience. The questionnaire was trialed with several nurse clinicians and two groups of undergraduate nurse education students and refined and subsequently administered to:

- Bachelor of nursing students (in years 1 and 2) at the three Australian universities involved in the project;
- nurse academics at the three universities;
- clinical nurse educators at the three universities;
- nurse clinicians at two metropolitan and one regional hospital as well as nurse clinicians at a community health centre; and
- university disability officers from across Australia.

The participants were identified by the members of the expert group at each university. Questionnaires were distributed at the end of a lecture session to the whole Year 1 and 2 cohorts of nurse education students at the three participating universities for those who chose to participate, and were collected by a Departmental administrative officer. Questionnaires for staff were distributed amongst academic staff and nurse clinicians via staff mail boxes and were returned via reply paid envelope. Hospitals in the catchment areas of the universities were invited by letter to participate and questionnaires were distributed by a local administrator and also returned via mail. Disability officers were sent the questionnaire by email and returned them by reply paid post. Questionnaires were colour coded for each category of participant and were analysed using SPSS.

The questionnaire comprised four sections covering:

- personal and vicarious experience of disability and knowledge of the DDA;
- attitudes towards admission to a Bachelor of Nursing program in the presence of certain disabilities;
- attitudes toward a person's ability to successfully undertake clinical education in the presence of certain disabilities; and
- demographic data.

The total numbers of questionnaires returned was 415 (not all respondents completed all sections of the questionnaire), with a detailed breakdown of respondents being as follows:

- Student nurses—330 (response rate 72%)
- Nurse educators (including nurse academics)—48 (response rate 83%)
- Disability officers—29 (response rate 83%)
- Nurse clinicians—32 (response rate 11%)
- Status not indicated—3

Ethics permissions were received from all of the three universities involved in the study, as well as from the hospitals that agreed to participate in the study (see later for a discussion of the difficulties in obtaining ethics approval).

Response rates for all groups except for nurse clinicians were above 72%. As the response rate for nurse clinicians was only 11%, this data was eliminated from the study. Therefore the questionnaire responses for staff discussed here only relate to university-employed personnel. Less than 10% of respondents were male, possibly reflecting the female nature of the nursing profession. Most students fell within the 18–20 years age bracket, and staff mainly in the 21–30 and 30–41 years age brackets.

The questionnaire comprised the following sections:

- *Section A* elicited information from respondents regarding their *personal and vicarious experience of disability*. This section also sought to quantify respondents' knowledge of the DDA by posing three true/false assertions in relation to the Act.
- *Section B* sought to measure the respondents' *attitudes toward a person's ability* to successfully undertake clinical education in the presence of certain disabilities. To

achieve such measurement respondents were invited to indicate, on a Likert scale, the degree to which they believed particular disabilities impacted upon a person's ability to undertake clinical education.

- *Section C* looked at the issue of admission to a Bachelor of Nursing course. Using a Likert scale respondents gave their reaction to a range of positive and negative statements pertaining to disabilities that, in their view, might *impact upon an individual's right of admission* to a BN program.
- *Section D* sought *demographic data* about the respondent, such as age, gender and occupational status.

Research findings

As previously stated, not all of the research findings are documented in this article. Rather the section of the findings that demonstrates the impact that knowledge of disability and disability legislation has on respondents' attitudes toward the inclusion of people with specific disabilities in nurse education programs is presented.

It should be noted that there were considerable difficulties in obtaining ethics approval for the study. An unexpected but very telling feature of the project was although ethics approval was obtained from the three universities involved, there were enormous difficulties in gaining ethics approval from hospital ethics committees to survey hospital staff. The greatest difficulties concerned an ethics committee which represented the interests of a large regional public hospital and an equally large regional private hospital. While the directors of nursing of the two institutions expressed support for the research, their ethics committee did not share this support and refused permission for the staff to be surveyed or interviewed. They were concerned that the project's outcomes might reflect negatively on their institutions and that staff responding to the questionnaire might be caused distress.

In retrospect it would seem that this committee was ignorant of the provisions of the DDA and fearful of those with disabilities as they freely admitted ignorance of the DDA, with one member asserting that he would write to the Federal Minister of Health to seek repeal of the Act. Two other members of the Committee condemned the Act as fundamentally flawed claiming that those with disability should not, and could not, become nurses and that it was the responsibility of universities to prevent this from happening. Yet another member of the ethics committee voiced criticism of the Act claiming it would allow drug addicted individuals to enter the nursing profession. The encounter with this ethics committee highlighted a lack of knowledge of, and acceptance of, disability by a group expected to be enlightened and informed on the issue. At the same time the encounter demonstrated their resistance to change and provided evidence of the very attitudes that the research sought to investigate. A further two hospital ethics committees failed to respond to requests for approval to survey their staff. Their actions again suggest a lack of concern for, or knowledge of, the inherent difficulties potentially faced by students with disabilities when they undertake practical placements in hospitals.

Knowledge of the legislation

Respondents' knowledge of the DDA was examined as it was reasoned that such knowledge was essential for compliance with the legislation. This was measured through respondents' responses to three statements pertaining to the DDA. Responses produced both expected and unexpected results. It was, for example, expected that disability officers, because of the nature of their work, would achieve the highest level of correct response of all respondents. In the instance of the first (true) statement pertaining to the DDA, which read: *A student who believes he/she is being discriminated against by a university staff member because of his/her disability may lodge a complaint against the individual under the Disability Discrimination Act (DDA)*, this proved to be a flawed assumption. The disability officers were correct in their response the *least* often of the three categories of respondent. Interestingly, students, perhaps the category of respondent expected to possess the least knowledge of the DDA, gave the correct response the most often. The nurse educators sat mid-way between the other two categories in terms of the accuracy of their response to the first statement. Table 1 provides a summary of the responses to the first statement pertaining to the DDA.

With regard to the second (true) DDA statement: *Under the DDA, a professional registration body, such as the Nurses' Board of Victoria, may discriminate against a person on the grounds of their disability if that person is unable to carry out the inherent requirements of the occupation*, the pattern of response followed more the pattern that had been anticipated. As Table 2 illustrates this time the disability officers responded correctly at a rate about twice that of the other two categories of respondent. However the responses from the nurse educator group were not as expected in that they recorded a much lower than expected correct response rate (36%).

Table 1 Occupational status and knowledge of the DDA (1)

Status	Number who gave correct response to DDA assertion 1	Number of respondents to this assertion
Students	254 (86%)	295
Nurse educators	36 (81%)	44
Disability officers	20 (74%)	27
		366

Table 2 Occupational status and knowledge of the DDA (2)

Status	Number who gave correct response to DDA assertion 2	Number of respondents to this assertion
Students	103 (35%)	295
Nurse educators	16 (36%)	44
Disability officers	21 (77%)	27
		366

As Table 3 shows, in terms of the third (false) DDA statement which read, *Under the DDA, an educational institution may discriminate against prospective students or current students only if they will be unable to carry out the inherent requirements of the occupation for which they propose to train/are training*, the results for disability officers are as expected in that they demonstrate a knowledge of the DDA well above that of the other categories of respondent. The nurse educator group continued to show a low level of knowledge of the DDA, with the accuracy of their response being a mere 16.5%.

Of concern is the finding that not even the disability officers possess complete knowledge of the DDA. Of still greater concern are the results relating to the nurse educators. Their level of knowledge of the DDA is low which is of particular concern given the role they play in the education of students. They have the power to pass or fail students yet they do not appear to have full comprehension of the legal responsibilities this entails when disabilities are a factor.

The results indicate that, of the three categories of respondent, disability officers possess superior knowledge of the DDA. They have the highest mean correct response rate and their rate of correct response never fell below 74%. In contrast, the other categories of respondent demonstrate a much lower level of knowledge of the DDA. While it is clear that disability officers demonstrate the best knowledge, it could be argued that they should have demonstrated even greater levels of knowledge. Their lack of knowledge could potentially lead them to provide advice that might contravene the Act, thereby rendering their employer (the university) legally vulnerable.

Table 4 shows clearly how the different categories of respondents varied in their understanding of the DDA. In essence it reveals that the disability officers had a mean correct response rate of 78% while students had a mean correct response rate of 50%. In contrast the nurse educator group was *incorrect* in their response most of the time as they had a mean correct response rate of only 43%.

Table 3 Occupational status and knowledge of the DDA (3)

Status	Number who gave correct response to DDA assertion 3	Number of respondents to this assertion
Students	87 (29%)	298
Nurse educators	7 (16%)	44
Disability officers	23 (88%)	26
		368

Table 4 Status and knowledge of the DDA (Questions 1, 2 and 3)

Status	Mean level of correctness to all 3 DDA assertions (%)
Students	50
Nurse educators	43
Disability officers	78

Attitudes towards entry to Bachelor of Nursing programs

The first major hurdle faced by an individual with a disability endeavouring to qualify as a nurse, is actually securing a place in a Bachelor of Nursing (BN) program. The research sought to shed further light on this issue by asking the questionnaire respondents to react to a number of specific statements pertaining to entry to BN programs by those with a range of disabilities. This was done to investigate whether certain disabilities attracted particular attitudes. Respondents were requested to indicate their level of agreement or disagreement with each statement. They were, for example, asked to indicate their level of agreement with the statement: *people who suffer from seizures should never be permitted entry (to a BN program)*. The other statements were of a similar structure with statements relating to disabilities as diverse as HIV-AIDS and obesity.

While the link between occupational status and attitude/beliefs about inclusion of those with disability in BN programs is not always consistent across all statements made, there are nonetheless findings worth noting. Nurse educators showed a tendency to favour exclusion of those with disability more readily than did the other two status groups. This was especially evident in their response to the statements pertaining to psychiatric disorders, drug addicted persons, dyslexia, inability to lift patients, cardiac disorders, visual impairment and obesity. In contrast the disability officers were the status group most inclined to favour inclusion of those with disability. Only 8%, or 2 disability officers, for example, agreed with the statement *people with psychiatric disorders should only be given entry (to a BN program) if they consent to ongoing psychiatric treatment*. This compared with 40% of students and 55% of the nurse educators. A similar pattern was evident with the statement pertaining to drug addiction, which read, *people with a history of drug addiction should never be permitted entry (to a BN program)*. Not one disability officer expressed support for this statement yet 22% of students expressed support, as did 38% of nurse educators (see Table 5 for details)

The data are suggestive of a strong link between occupational status and attitudes toward inclusion of those with a disability in BN programs. In particular the data indicate that nurse educators are the least supportive of the inclusion of those with disabilities.

Experience of disability

Respondents to the questionnaire were asked to disclose if they had a disability of their own and if they had worked alongside a colleague with disability (Tables 6, 7). The purpose of these questions was to uncover the degree to which personal experiences of disability might influence attitudes toward the inclusion of those with disabilities in clinical education. It was hypothesised that personal experience of disability might produce a more accepting attitude toward those with disabilities. Respondents were asked to rate, on a four point scale, the degree to which they believed a range of disabilities impacted upon an individual's ability to undertake nursing clinical education. The data was collated with the four response categories being collapsed into just two categories: *high impact* and *low impact*.

Table 5 Occupational status and attitude toward inclusion in BN

	Agree	Neither agree nor disagree	Disagree	Total
People with psychiatric disorders should only be given entry if they consent to ongoing psychiatric treatment				
Students	130 (40%)	117 (36%)	80 (24%)	327
Nurse educators	26 (55%)	14 (32%)	6 (13%)	47
Disability officers	2 (8%)	6 (23%)	18 (69%)	26
Total	158	138	104	400
People with a history of drug addiction should never be permitted entry				
Students	67 (20%)	86 (27%)	174 (53%)	327
Nurse educators	18 (38%)	11 (24%)	18 (38%)	47
Disability officers	0 (0%)	4 (14%)	24 (86%)	28
Total	85	101	216	402
Dyslexia should not be an impediment to a person gaining entry				
Students	175 (54%)	76 (3%)	75 (23%)	326
Nurse educators	22 (47%)	11 (23%)	14 (30%)	47
Disability officers	26 (93%)	2 (7%)	0 (0%)	28
Total	223	89	89	401
The inability to lift patients should not preclude someone from entry				
Students	199 (60%)	53 (16%)	78 (24%)	330
Nurse educators	23 (50%)	7 (15%)	16 (35%)	46
Disability officers	19 (70%)	5 (19%)	3 (11%)	27
Total	241	65	97	403
People with cardiac disorders, such as angina, are unsuitable applicants				
Students	21 (6%)	78 (24%)	228 (70%)	327
Nurse educators	10 (22%)	10 (22%)	25 (56%)	45
Disability officers	2 (7%)	4 (14%)	22 (79%)	28
Total	33	92	275	400
Persons with visual impairment should only be granted entry if their condition is able to be surgically corrected				
Students	49 (15%)	102 (31%)	178 (54%)	329
Nurse educators	13 (29%)	10 (22%)	22 (49%)	45
Disability officers	1 (4%)	3 (11%)	23 (85%)	27
Total	63	115	223	401
People who are more than 30% overweight should only be permitted entry if they consent to ongoing nutritional counseling				
Students	21 (6%)	32 (10%)	274 (84%)	327
Nurse educators	11 (24%)	7 (15%)	28 (61%)	46
Disability officers	1 (4%)	1 (4%)	25 (92%)	27
Total	33	40	7	400

The findings suggest that having a disability may make a person more accepting or supportive of others with disabilities. More importantly the findings strongly suggest that having worked alongside a colleague with disability will significantly

Table 6 Entry to clinical—disability (own)

Disability/chronic medical condition	Low impact	High impact	Total
Chronic infectious diseases			
Yes	40 (73%)	15 (27%)	55
No	202 (59%)	138 (41%)	340
Don't know/unsure	5 (50%)	5 (50%)	10
Total	247	158	405
Chronic fatigue syndrome			
Yes	30 (56%)	24 (44%)	54
No	158 (46%)	183 (54%)	341
Don't know/unsure	6 (60%)	4 (40%)	10
Total	194	211	405
HIV–AIDS			
Yes	39 (71%)	16 (29%)	55
No	204 (60%)	136 (40%)	340
Don't know/unsure	6 (60%)	4 (40%)	10
Total	249	156	405
Vision impairment—legally blind			
Yes	12 (22%)	43 (78%)	55
No	41 (12%)	300 (88%)	341
Don't know/unsure	4 (40%)	6 (60%)	10
Total	57	349	406
Chronic infectious diseases			
Yes	42 (78%)	12 (22%)	54
No	285 (86%)	47 (14%)	332
Don't know/unsure	8 (89%)	1 (11%)	9
Total	335	60	395
Chronic leukaemia			
Yes	30 (56%)	24 (44%)	54
No	145 (43%)	195 (57%)	340
Don't know/unsure	3 (30%)	7 (70%)	10
Total	178	226	404

impact positively upon an individual's level of acceptance of others with disabilities.

Individual nurse clinicians interviewed for the study provide evidence for this view and reported that people with disabilities are accepted into the profession and are able to successfully work as nurses. "Lots of nurses already in the profession suffer disabilities and most do OK" (Clinician 2). "There is much more acceptance of people with a disability in the nursing profession now than when I first began nursing" (Clinician 1). Another stated, "We need to explode the many myths of disability. A person with a psychiatric disability might be very good at counseling and working with patients with psychiatric disorders because of the potential for deeper levels of empathy and understanding. There are too many restrictions on

Table 7 Entry to clinical—disability (colleague)

Worked with a person with disability/chronic medication condition/s	Low impact	High impact	Total
Epilepsy/seizures			
Yes	142 (89%)	18 (11%)	160
No	157 (76%)	50 (24%)	207
Don't know/unsure	29 (76%)	9 (24%)	38
Total	328	77	405
HIV–AIDS			
Yes	108 (69%)	49 (31%)	157
No	113 (54%)	95 (46%)	208
Don't know/unsure	28 (74%)	10 (26%)	38
Total	249	154	403
Parkinson's disease			
Yes	79 (51%)	77 (49%)	156
No	84 (41%)	122 (59%)	206
Don't know/unsure	18 (47%)	20 (53%)	38
Total	181 (45%)	219 (55%)	400
Vision impairment—legally blind			
Yes	32 (20%)	126 (80%)	158
No	21 (10%)	187 (90%)	208
Don't know/unsure	4 (11%)	34 (89%)	38
Total	57	347	404
Vision impairment—low vision			
Yes	90 (57%)	69 (43%)	159
No	98 (47%)	110 (53%)	208
Don't know/unsure	21 (55%)	17 (45%)	38
Total	209	196	405

people with a disability" (Clinician 4). They did however report continuing negative attitudes to people with disabilities. "Some people are still highly opposed to employing nurses with any types of disability. They regret and ignore the legislation" (Clinician 3). "Many people have a disability but keep it to themselves… fearing all the time that they will be exposed" (Clinician 5).

Although there were some minor differences by age and gender to some of the responses, overall no gender or age pattern emerged. Both females and males placed the same disabilities in their 'top four' of disabilities impacting on ability to undertake clinical education.

Summary and conclusions

The major findings of the research are that those associated with the entry and participation of people with disabilities, especially in practicum-based courses such as nursing, may lack sufficient knowledge to carry out their responsibilities under

the DDA, and may hold negative or hostile attitudes to students with disabilities. Occupational status correlates with particular attitudes towards the inclusion of people with disabilities in nursing with those with more knowledge of the DDA. Personal or vicarious experience of disability also makes a difference. Those with personal experiences of disability or who have worked alongside a colleague with a disability have more positive attitudes towards inclusion.

Universities therefore need to address ignorance and disregard of disability legislation and policies amongst their staff particularly in areas such as nurse education. They also need to take a lead role in working with their affiliated agencies and professional bodies in addressing deficit and uninformed views. For universities, this means that in order to comply with their responsibilities under the DDA, they must ensure that all relevant parties, including external agencies, have sound knowledge of the DDA and its implications for nurse education.

Universities and the agencies with which they work have now been operating under legislative and institutional policies that aim to promote the access and participation of students with disabilities for nearly 20 years. The renewed focus on equity groups' participation rates through the publication of the Bradley Review and the Australian Government's response to the Review is welcome and timely. It is clear that there is still much work to be done to achieve the ideals of these policies and objectives. It is hoped that this time around a simple focus on measuring the quantity of student numbers and focusing on simple targets does not ignore the issue of the quality of the student experience, especially for students with disabilities. As Trevor Gale, Director of the National Centre for Student Equity in Higher Education in Australia stated at the launch of the Centre in March 2009, "The question of equity needs to shift from access, to access to what" (Gale 2009).

Students with disabilities will have already faced and surmounted a number of barriers in their quest to get to university and will have already demonstrated a level of resilience and perseverance. They may have experienced multiple layers of disadvantage and their compounding effects as they may also come from a rural or low socioeconomic background. It is important that equal access to university is encouraged for students with disabilities, but we must also ensure that the hopes and aspirations that we have encouraged are not dashed by inflexible course requirements that then inhibit or prevent success in their courses. The special focus on students from low socioeconomic backgrounds in the Bradley Review and the Australian Government's response to the Review is welcome but we must not forget that other groups such as students with disabilities still require attention and support. As stated in the Australian Government's review of education services for tertiary students with disabilities (DEEWR 2009) this attention needs to encompass a focus on the attitudes of teaching staff in facilitating or inhibiting their participation and success.

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