Ageing of people with an intellectual

disability: Effective training for frontline workers

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Abstract

While the attainment of late life represents a significant achievement for people with an intellectual disability, increased life expectancy has resulted in growing concerns about the extent to which disability service providers are ready to meet the changing needs of increasing numbers of older people and facilitate their ongoing social inclusion. Training of frontline disability staff is widely accepted as an effective strategy for increasing organisational capacity to contribute to improved quality of life for people with an intellectual disability. The study identifies training needs analyses and 'ready-to-deliver' training programs for frontline disability services staff working with adults with an intellectual disability who are ageing, assesses whether the training programs contribute to improved quality of life outcomes for service users, and makes recommendations for future research and development of training for disability services staff who work with older people with intellectual disability.

Keywords: intellectual disability, ageing, staff training, service provider, quality of life, social inclusion

For the first time in history, a significant number of adults with an intellectual disability are living into old age (Buys et al., 2008; Janicki & Ansello, 2000). The average life expectancy for a person with an intellectual disability has increased from about 20 years in 1930 (Carter & Jancar, 1983) to approximate that of non-disabled citizens living in the late twentieth century (Janicki, Dalton, Henderson & Davidson, 1999; Patja, Iivanainen, Vesla, Oksanen & Ruoppila, 2000). While the attainment of late life represents a significant achievement for

people with intellectual disability, increased life expectancy has resulted in growing concerns about the extent to which disability service providers are ready to meet the changing needs of increasing numbers of older people (Australian Institute of Health and Welfare [AIHW], 1997, 2000; Fyffe, Bigby, & McCubbery, 2006; Wilkinson, McCallion, Fleming & Kerr, 2004). Concerns also exist regarding services' ability to support older people with an intellectual disability to 'age in place' (Williamson & Harvey, 2007).

Literature outlining the supports needed to respond effectively to people with an intellectual disability whose needs are changing as they age has grown considerably since the 1980s (Bigby, 2004; Janicki & Dalton, 1998). A number of frameworks have emerged from the literature on ageing and/or intellectual disability, and are currently used to underpin contemporary understanding about what constitutes quality of life for this group. They include: active ageing (Buys et al., 2008; World Health Organization [WHO], 2002); quality of life for people with an intellectual disability (Brown, 1998, 2000; Felce & Perry, 1997); the senses framework (Nolan, Davies & Grant, 2001); and successful ageing for people with an intellectual disability (Bigby, 2004, 2005). Despite debate about whether frameworks should be based on objectively determined criteria or the subjectively determined preferences of people with a disability (or a combination of both), the major themes emerging from the aforementioned perspectives are relatively congruent. They include: having optimal health; having positive physical and emotional wellbeing; maintaining valued interpersonal relationships; social inclusion; engaging in meaningful activity; maintaining skills; and having a sense of control over one's life.

A movement ensuring people with an intellectual disability benefit from social inclusion agendas and have opportunities to 'age in place' has also gained momentum in recent years. Ageing in place is central to aged care provision in Australia (AIHW, 2005; Australian Government, 1997), and Bigby (2004) defines ageing in place for people with an intellectual disability as "...a concept that attempts to maximise choice for an older person, by allowing them to remain in the living situation of their choice for as long as they wish and are able to" (p. 159). Emphasis on ageing in place for people with intellectual disabilities may be due, in part, to research findings that indicate living in residential aged care facilities often results in poorer-than-average quality-of-life outcomes for this group (Jones, 2006; Thompson, Ryrie & Wright, 2004; Winkler, Farnworth & Sloan, 2006). Supporting this group to age in place within disability services is generally considered to be a more appropriate alternative than transferring them to residential aged care prior to becoming frail aged (see Bigby, 2004; Hales, Ross & Ryan, 2006).

Researchers and advocates have identified the need to develop policies, structures, systems and individualised responses that address the changing needs of this emerging group as they age in place (AIHW, 1999; Bigby, 2004, 2008; Ecumenical Housing & Bigby, 1999; Parish & Lutwig, 2005; Williamson & Harvey, 2007). Bigby (2004) identified that, while structural and systemic approaches – such as the development of housing and day program models – contribute to addressing the issues, operationalisation of quality support on a day-to-day, person-by-person basis is equally important. This approach requires a focus on training, practice and leadership (Mansell, 1998, cited in Simmons and Watson, 1999, cited in Bigby, 2004).

Both Commonwealth and state governments have recognised the importance of training support staff in the areas of disability and ageing. The Commonwealth State/Territory Agreement (CSTDA) of 2003 between the Commonwealth of Australia and the State of Victoria agreed that both parties would develop "Appropriate training and skills development for disability and aged care support staff to ensure that both sectors have an improved understanding of the support needs of people with disabilities as they age"

(Commonwealth of Australia and The State of Victoria, 2003, p. 4; Leveratt, Bowers & Webber, 2005).

Although no similar clause exists in the 2003 CSTDA agreement between the Commonwealth Government and Queensland (Commonwealth of Australia and The State of Queensland, 2003) or the 2009 National Disability Agreements between the Commonwealth and States and Territories (Australian Government – Department of Families, Housing, Community Services and Indigenous Affairs, 2009), the Queensland government acknowledges the need for training of disability support workers. The relationship between training and quality service provision is recognised within Standard 10 of the Queensland Disability Services Standards: in order to achieve and maintain certification, all state government-funded disability services must ensure staff have the attitudes, skills and knowledge necessary to deliver positive support and services to service users (Disability Services Queensland, 2008).

Training is routinely accepted as an effective mechanism for improving employee performance and delivering organisational outcomes. Further, some studies support the axiom that training results in positive outcomes for service users of disability services. Fyffe et al. (2006) reported that attitudes and skills of staff played a central role in enabling services to continue supporting people to age in place. In their study of nine organisations providing services to people ageing with a lifelong disability, Dowse, McDermott and Watson (2009) identified that a lack of information and staff training negatively impacted upon organisations' ability to meet ageing service users' changing needs. Studies undertaken by Felce et al. (2000) and Jones et al. (2001) found that training in Active Support resulted in significant increases in participation of service users and assistance provided by staff. Hatton, Rose and Rose (2004) further claim that a direct, causal relationship exists between staff behaviour and performance, and the quality of life of service users.

Not all studies, however, report that training improves capacity to deliver planned outcomes for service users. Smith, Parker, Taubman and Lovass (1992) found that gains made during training may not generalise to service user contexts. A study undertaken by Mörch and Eikeseth (1992) demonstrated that training can result in generic improvements in both staff and service users but does not necessarily meet training objectives. The inconsistency in training outcomes highlights the importance of evaluating the effectiveness of training programs and investigating factors that impede training success.

Despite mixed findings, recommendations for training are widespread (Bigby, 2004; Dowse et al., 2009; Hewitt & Larson, 2007; Maes & Van Puyenbroeck, 2008; Williamson & Harvey, 2007). This paper contributes to the discussion on training by identifying reviewed training needs analyses and 'ready-to-deliver' training programsⁱⁱ for frontline disability services staff who work with older adults with an intellectual disability, assessing whether the training programs are associated with improved outcomes for service users, and making recommendations for further research and training for staff who work with older people with intellectual disability.

Method

Literature searches were conducted using the Griffith University library catalogue, electronic databases (including ProQuest, Web of Science, ScienceDirect, Informit, Expanded Academic ASAP (Gale), Ovid, PsychINFO, PsychARTICLES and Wiley Interscience), and the Google internet search engine. Terms combined for the search included: intellectual/developmental/learning/lifelong disability/impairment or mental retardation;

ageing/aging/life course/life stage/dementia/Alzheimer's; (staff) training/education; and service (provider).

Search limits were minimal to maximise the likelihood that items relevant to the topic would be identified: a) all searches were limited to studies reported in the English language, b) database searches were limited to full text items, and c) all study designs and sources from 1990 onwards were considered.

The search was conducted in two stages. The stage one search aimed to identify papers, reports, book chapters and peer-reviewed articles that addressed all elements of the research question. An item was therefore included in the review if: a) it focused on people with an intellectual/lifelong/developmental/learning disability for whom ageing was a concern; b) older people with intellectual disability were discussed within the context of disability service provision; and c) the focus of the publication was about the development, or delivery and evaluation, of ready-to-deliverⁱⁱⁱ training programs for frontline staff working with older people with intellectual disability. Sources were also included if they provided sufficient information to enable analysis of the training initiative with regard to at least three of the following categories: 1) methodology for training content development or training needs analysis; 2) nature or features of the training program; 3) training content; 4) evaluation of training effectiveness; and 5) recommendations to improve training for the relevant staff group.

The stage two search consisted of reviewing reference lists of retrieved items to locate relevant publications not already identified. Databases and internet search engines used in the stage one search were employed to locate these items. Attempts were also made to contact training administrators of non peer-reviewed programs located on the internet. Providers of these programs were invited to submit papers and training curricula for inclusion in the review.

A late draft of the paper was sent to three individuals with knowledge of disability policy, research, and/or service provision for people with a lifelong disability who are ageing for comment and feedback. This feedback was evaluated and has been incorporated.

Results

The literature review identified nine studies and reports which met the criteria for inclusion. An overview of the sources is displayed in Table 1 following.

Table 1

Training for frontline staff working with people with intellectual disability whose needs are changing due to ageing: Brief overview of sources

In text references & literature type	Location	Disability cohort	Background &/or purpose of the study, report or training
1. Vocational Education and Training (VET). See Aspire Learning Resources (2010). See also Australian Government - Department of Education, Science and Training (2007). Grey literature.	Australia- wide.	General disability with ageing.	VET training packages are currently delivered by registered training organisations (RTOs) across Australia. Certificate III, Certificate IV and Diploma courses in Disability or Community Services contain the elective unit CHCDIS313A: support people with disabilities who are ageing.
2. Fahey-McCarthy, McCarron, Connaire & Mc Callion (2009). See also McCarron, Fahey- McCarthy, Connaire & McCallion (2008). Peer-reviewed.	Dublin, Ireland.	Intellectual disability (ID) and ageing, with dementia and palliative care issues.	Study aimed to understand care concerns for people with ID living with advanced dementia; and develop, deliver and evaluate training for staff working with people with ID requiring palliative care.
3. Fryberger (1992). See also Mank (2000). Grey literature.	USA (programs located in six states).	Develop- mental Disability (DD) with ageing.	U.S. federal legislation has provided for university-based training and education of workers supporting people with DD within the University Affiliated Programs (UAP) network. Report summarised some community-based training initiatives.
4. Gibson (1991). Peer-reviewed.	Oregon, USA.	DD with ageing and healthcare needs.	Study reported on training tools available and surveyed services regarding training needs of staff who respond to the healthcare needs of older people with DD.
5. Harazin, McCallion & Nickle (n.d.). Grey literature.	New York, USA.	DD/ID with symptoms of dementia.	Demonstration project operated from 2002-05 to support people with ID/DD with dementia to age in place. Project included developing and delivering staff training.
6. Kalsy, Heath, Adams & Oliver (2007). Peer-reviewed.	Birming- ham, UK.	ID with ageing and dementia.	Study investigated the effects of training on staff attributional style and optimism for behavioural change in people with ID who have dementia.
7. Kultgen & Rominger (1993). Chapter in edited book.	USA (multiple states).	DD with ageing.	Chapter discussed cross training (inter-disciplinary and inter-agency) between DD and gerontological systems to address general and specific needs of people ageing with DD. Training needs survey of disability and ageing sectors was undertaken.
8. Robertson, Moss & Turner (1996). Peer-reviewed.	Manchester, UK.	DD with ageing.	Study reviewed policy, training and services for older people with ID in the UK. National survey was undertaken to prioritise possible training topics. The study reported on the prevalence of training for staff working with older people with ID.
9. Wark (2009, 2010). Grey literature.	NSW, Australia.	ID with ageing.	Unpublished doctoral dissertation included surveying support workers regarding their training needs in relation to working with people with ID who are ageing.

Key themes from the sources are summarised below.

General findings

Stage one searches identified nine training-related studies and initiatives that met the inclusion criteria for this article. Five peer-reviewed articles and published book chapters were identified (2, 4, 6, 7, 8). Additional programs identified from grey literature were also few in number (1, 3, 5, 9). Of the nine identified training-related initiatives, four were based in the USA (3, 4, 5, 7), three in the UK (2, 6, 8), and two in Australia (1, 9). Neither of the Australian sources were peer-reviewed.

Stage two searches did not locate additional sources.

Four of the nine initiatives assessed the training needs of service workers providing support to older people with intellectual disability (4, 7, 8, 9). One of these studies also assessed the prevalence of training for staff working with older people with intellectual disability (8). The remaining five items comprised staff training initiatives (1, 2, 3, 5, 6).

Processes used for development of training content and undertaking needs analyses

Only two training program sources reported on processes used to develop curricula (1, 2). Both studies used a range of methods. Source 1 employed methods that reflected the industry-driven nature of the program such as surveys, interviews, observation, and a variety of group processes. Source 2 used staff focus groups, literature reviews and feedback from the training pilot to inform content development.

The four studies that undertook training needs analyses all highlighted surveys and rating items as preferred methods for identifying training priorities (4, 7, 8, 9). Determination of training needs was made by service administrators, professionals and/or staff. Service user perspectives on the training needs of staff were not explored.

Features of training programs

All training programs were delivered using both didactic and experiential modalities. Specific delivery modes varied across programs, and, apart from trainer assistance, no one mode was preferred. Delivery mechanisms included: self-paced learning (1,2); trainer presentations and powerpoint displays (2, 3, 6); discussions (2); reflective diaries (2); quizzes, exercises and/or case scenarios (1, 2, 6); university-level training programs (3); CD-Roms (5); and training kits (1, 2, 3, 5). Program duration was not consistently reported, with some programs being delivered over multiple sessions (1, 3) and others being delivered in a single session (6). None of the studies reported whether post-training supervision and support were provided to training participants.

Training content

Two of the five programs delivered general training content in relation to responding to the needs of older people with intellectual disability (1, 3). The remaining three programs delivered specialised content focusing on dementia (5, 6), and dementia and palliative care needs (2). Two of these programs underwent peer-review (2, 6).

The introduction to this review identified several frameworks and themes within the literature on intellectual disability and ageing that propose desirable quality-of-life outcomes for older people with intellectual disability. Insufficient information was provided to enable a detailed analysis of each training program against these benchmarks. Additionally, in four of the nine sources (2, 4, 5, 6), the scope of training programs or needs analyses prioritised

discussions relating to health-related issues. From the limited information provided, the health and wellbeing needs of service users were identified as relevant topics for training in at least seven of the sources (2, 3, 4, 5, 6, 8, 9). Other themes were inconsistently reported but included person-centred approaches to support (2, 3, 5, 9), social inclusion and relationships (4, 5, 7, 9), and environmental planning and service options (5, 6, 8). Training in general staff skills was promoted in at least three sources (1, 2, 9), and the need for training that recognised service user culture was specifically mentioned in two programs (2, 3).

Training effectiveness

Training effectiveness was typically not reported. Two peer-reviewed studies reported data relating to analysis of training effectiveness (2, 6). In both instances, effectiveness was determined by measuring changes in staff attitudes and knowledge. Both programs resulted in statistically significant increases in these areas. Improvements in outcomes for service users were not measured, nor were factors that facilitated or detracted from training effectiveness identified. The three training programs sourced from grey literature (1, 3, 5) did not provide sufficient information about evaluation processes or outcomes to enable analysis of effectiveness.

Recommendations for improving training

Most sources made recommendations for improving training for staff who work with people ageing with an intellectual disability (2, 4, 6, 7, 8, 9). Two themes emerged from the recommendations: the need to improve training in health-related areas (2, 4, 9); and the need for interdisciplinary training, particularly between providers of intellectual disability services and the aged care sector (4, 7, 9). Two sources also recommended closer agency and trainer collaboration to improve the likelihood that training met identified needs (7, 9).

Additional programs and resources that did not meet inclusion criteria

Other sources identified through searches of the internet referred briefly to training programs planned or undertaken for staff of older people with intellectual disability (Alzheimer's Association, 2010; Backx, Wezenbeek & Verstraten, n.d.; British Institute of Learning Disabilities, 2010; Dowse et al., 2009; Estia Centre, 2010; Last Passages, 2007). As these sources did not provide sufficient information to enable analysis of the training programs with regard to at least three of the categories outlined in the methodology section, they were not included in the review.

Searches identified a large number of resources that could be used as training guides or curricula, sources of information, or tools to improve staff responses (e.g. Blackman & Brooks, 2008; Dew & Griffin, 2002; Williamson & Harvey, 2007) which were incidental to the objectives of this review and therefore outside the scope of this paper. They have not been itemised in this article.

Discussion

Study limitations

The lack of data from programs sourced from grey literature about processes used to develop training content and assess training effectiveness is problematic. All non peer-reviewed training programs provided insufficient information to determine whether the processes used

to develop course content or undertake program reviews met appropriate standards of research rigour. A lack of attention to evaluating training effectiveness meant that much of the training located from grey literature could not be determined to be either effective or ineffective in improving quality of life for service users, or enhancing staff skills and knowledge. Additionally, as not all training administrators promote training programs or upload training material onto the internet, it is likely that much of the training in this area remains 'closed' to the broader disability sector and/or unevaluated for effectiveness.

Other limitations were encountered during the review. All but two out of 14 attempts to contact program administrators and locate supplementary material about training identified on the internet were unsuccessful. Additionally, two individuals communicated concerns about potential criticism of the training program and protecting intellectual property, and cited these issues as reasons for not contributing additional information that would potentially qualify the programs for inclusion in the review.

A number of items of potential interest identified in reference lists were also unable to be located through searches of South-East Queensland university and state libraries. vi

Training efficacy

The issue of training efficacy is an important one for service providers serious about improving quality of life outcomes for service users. Only two of the training programs identified in the review reported undergoing evaluation for effectiveness that were later subject to peer review. These programs defined effectiveness as increases in staff knowledge and/or improvements in attitudes towards, and beliefs about, older people with intellectual disability. Without adequately evaluated training, there is little objective evidence to support the premise that training contributes to improved outcomes for service users.

Additionally, factors facilitating and impinging upon training effectiveness remain unidentified. Improvements in staff knowledge and attitudes may not be sufficient to mitigate the barriers encountered in their day-to-day work (Bigby, personal communication, May 29, 2010; Knox, personal communication, April 16, 2010). Where structural and systemic constraints exist, such as low staff-to-client ratios, high staff turnover, negative team cultures, and restrictive policy environments and program models (see, for example, Clement & Bigby, 2009; Hales et al., 2006; Jorgensen et al., 2009; McCarron et al., 2008), training may have limited impact.

Improving staff capacity to deliver quality services is a key objective of training. Training can improve staff confidence and assist them to more appropriately handle the stresses of their work (McDonnell, 1997) and improve skills (Hewitt, Nord, Larson & Lakin, 2008). Assessing training effectiveness by measuring increases in knowledge and improved attitudes of staff is based partly on the assumption that a trained workforce eventually leads to better outcomes for the end user of the system. Assuming this outcome without measuring it amounts to wishful thinking. Further, if training does not ultimately improve quality of life, its value to the service user is questionable.

Training content

While studies did not evaluate programs according to outcomes achieved for service users, they did attempt to address issues of relevance to them. Where sufficient information was provided about training program content, it was evident that emphasis had been placed on the medical, health and wellbeing needs of service users. For instance, responding to the needs of people with dementia was targeted in three of the five training programs.

This focus on health is warranted. Researchers have identified the importance of addressing the health needs of older people in general and the specific health-related vulnerabilities faced by this cohort (Bigby, 2004). However, the literature addressing quality of life for people with an intellectual disability as they enter later life emphasises the importance of considering outcomes from a broader perspective (Buys et al., 2008). It is important that not all training initiatives are embedded in the medical model, and include content relating to aspects of life that have been identified by service users as important to them and that contribute to a full and rich old age.

Australian-based training

In Australia, the most widely available training for frontline staff working with people with disability who are ageing is a single unit within the 'industry-led' Vocational Education and Training (VET) context. The VET system comprises Registered Training Organisations (RTOs), such as TAFEs, that deliver training programs driven by industry needs. Successful completion of courses results in nationally recognised qualifications based on the attainment of specified competencies (Goozee, 2001). The unit CHCDIS313A (support people with disabilities who are ageing) is one of a number of electives which can be studied as part of courses such as Certificate III and IV in Disability or Community Services.

The benefits of the VET programs are numerous. VET programs undergo regular review (Beven, 2004). They are also widely-available throughout Australia, delivery is flexible, and a number of Queensland-based disability service providers are relying on this framework to deliver training to staff (Brown, personal communication, May 24, 2010; Lifeline Community Care Queensland, n.d.).

Again, without evaluation data specific to this unit, it is not possible to determine whether CHCDIS313A provides support workers with sufficient skills and knowledge about ageing and intellectual disability to make a significant difference in people's lives. It is highly unlikely that this is the case, however, given the unit's general disability content and the limited nature and uptake of the unit (it is not a core unit within Certificate III or IV in Disability or Community Services). It is possible that completion of the elective as part of a course comprised of units from disability and aged care streams may provide the range of skills, knowledge and attitudes required to contribute to improved quality of life for older people with intellectual disability. At present this hypothesis remains untested.

A promising initiative

The University Affiliated Programs (UAPs) network in the USA has demonstrated a promising approach to disability sector training. UAPs (also known as Centres of Excellence for Developmental Disabilities) are not-for-profit facilities operating from universities. U.S. Federal legislation requires that, in addition to undertaking research about developmental disability, these centres provide interdisciplinary training to the developmental disability sector and support improvements to the service system. In 2000, the programs were providing training and mentoring for more than 5,000 long-term and 60,000 short-term disability services trainees (Mank, 2000).

UAPs have developed and delivered training initiatives throughout the USA, a number of which have been designed to improve service responses to people with developmental disability who are ageing (Fryberger, 1992). The UAP programs referred to in Table 1 represent a snapshot of earlier, community-based initiatives delivered through this training regime.

In recent years, disability-based, under- and post-graduate courses at universities auspicing UAPs have proliferated. Whether focusing training for frontline workers at university level delivers the desired outcomes is yet to be seen. Further, university-level education may not be the training option-of-choice for many frontline support workers. Despite the U.S. government's substantial investment in the UAP, Hewitt and Larson (2007) recently highlighted "the national crisis in providing an adequate and well prepared direct support workforce" (p. 185).

Conclusion

At present, insufficient peer-reviewed evidence exists to demonstrate that training has contributed to successful ageing for older people with an intellectual disability. Given repeated calls over several decades from researchers, policy makers and disability service providers for well-trained staff to work with this group, this situation represents a significant gap in research, training development and program delivery. It also constitutes a dilemma for the disability service system as it devises strategies to improve outcomes for this cohort: if training has not been shown to be effective, is it a worthwhile investment of already limited resources?

As referred to earlier in this paper, some evidence suggests that well-developed training may contribute to positive improvements in people's lives. The fact that no conclusion can be drawn about the effectiveness of training in the area of intellectual disability and ageing may reflect the dearth of research and evaluation in this area, and research objectives and design (for instance, measuring staff outcomes instead of outcomes for service users), rather than the failure of training to contribute to improved outcomes.

There is, therefore, an urgent need to strengthen the evidence base in the area of training for frontline workers who work with older people with an intellectual disability. Research is needed in a number of areas. Firstly, recommendations for additional research (as identified within the studies included in this review) should be considered, and existing peer-reviewed training needs analyses reviewed when developing future training programs. Additionally, research should be undertaken in training development. There is currently no comprehensive and clearly articulated training curriculum for frontline workers that encompasses the full range of desired quality-of-life outcomes outlined in the literature. While at least three of the reviewed studies recommended additional training in health-related areas, a broader training perspective is necessary to avoid over-reliance on medical models of support. A much-needed contribution to the research would, therefore, include an extensive review and critical synthesis of the existing body of literature, supplemented with stakeholder perspectives on training needs, to formulate coherent training frameworks and evidence-based content.

There is a need to improve the degree to which training offered to the disability sector undergoes objective evaluation. Investigations of training effectiveness through evaluation of outcomes for both staff and service users is urgently needed. Responsibility in this area lies, in part, with training providers and developers. Training providers should undertake evaluations of training program effectiveness against agreed-upon outcomes for service users and staff, and make the findings widely available. Partnerships with the academic sector are also recommended for the development of evaluation standards and processes that are congruent with research rigour.

Additionally, research is needed to understand the factors that impact both positively and negatively upon training success. It is particularly important to identify the influences that prevent improvements in staff knowledge and expertise from translating into improved quality of life for service users.

There is also a need to investigate training for support workers who work with older people with an intellectual disability from different cultural backgrounds (e.g. indigenous people and people from non-English speaking backgrounds). No research has currently been published in the area.

Research is also needed to evaluate how well Australia's existing training systems and structures meet the training needs of staff who support older people with an intellectual disability. A study evaluating the efficacy of VET programs to contribute positive outcomes to this group should be undertaken. Identified gaps in service user outcomes may be addressed by developing evidence-based training modules that compliment existing courses. Alternatively, a course in intellectual disability and ageing could be developed and delivered through the VET structure.

Exploration of new approaches to training is also required. An in-depth review of the impact of the U.S.'s UAP training network should be undertaken, and a study conducted to explore the transferability of this regime to the Australian context. Also, as recommended in the literature, there is a need to explore the feasibility of interdisciplinary training, particularly between providers of intellectual disability services and the aged care sector.

In the absence of (or in addition to) an evaluated, widely available training program, a directory of resources in the area of intellectual disability and ageing for use by disability services should be developed, maintained and widely promoted. On-going commitment to review and update the resource, and ensure its relevance across jurisdictions, would be required.

Whether or not training can contribute solutions to the challenges of service delivery to older people with an intellectual disability is yet to be demonstrated. Until training and resources are developed and evaluated against improved quality of life for service users, this premise will remain largely untested. And, as the numbers of older people with an intellectual disability peak within the next two decades (Bigby, 2004), calls for a well-equipped frontline workforce to manage the challenges of service provision to this cohort will only increase.

Notes

ⁱ The term 'intellectual disability' is used throughout this paper. Literature on ageing with a lifelong disability also refers to people with a learning disability, developmental disability or mental retardation.

ii Analyses and programs were either peer-reviewed, or subject to formal review or evaluation.

ⁱⁱⁱ The authors acknowledge that disability services in Queensland, Australia, are not typically funded to develop and deliver training. Without the infrastructure and resources to invest in this area, purchasing training from training providers is often a preferred staff-development option.

iv All training programs included in the review met the criteria for inclusion. One training program was not limited to intellectual, developmental or learning disabilities: the elective unit CHCDIS313A (support people with disabilities who are ageing) from Australia's Vocational and Educational Training (VET) programs in Disability and Community Services. The unit was included in the review as course content specifically addresses intellectual disability.

^v Each source is referred to throughout the results section as the number identified in Table 1.

vi Of note are references cited in Bigby (2009) (i.e. Cairns and Kerr, 1994; Kerr, 1997, 2007; Kerr & Wilkinson, 2005).

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