

Creating an Inclusive Society... How Close are We in Relation to Autism Spectrum Disorder? A General Population Survey

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Background Children with autism spectrum disorder are increasingly educated in mainstream classrooms in the United Kingdom (Wilkinson & Twist, *Autism and Educational Assessment: UK Policy and Practice*. NFER, Slough, 2010), and some employers are now specifically seeking out staff on the autism spectrum. Does that mean that we are living in an 'inclusive society' [United Nations Department of Economic and Social Affairs (UNDESA), *Creating an Inclusive Society: Practical Strategies to Promote Social Integration* 2008], in the sense that inequalities are reduced and full economic, social and cultural participation is advanced for individuals with autism?

Methods A general population survey was conducted to assess how close we, as a society, are to an inclusive society for individuals with autism in Northern Ireland. Public attitudes were examined to (i) visibility and

social interaction, (ii) aetiology, needs and interventions, and (iii) rights and resources.

Results A stratified, representative sample of 1204 adults took part in the survey; of these, 989 were aware of autism and their attitudes and behavioural projections reflected a mix of acceptance and denunciation. The level of confusion with regard to interventions reflected the general uncertainty within UK policy regarding meeting the needs of individuals on the autism spectrum (*International Journal of Disability, Development and Education* 61, 134, 2014a).

Conclusion Therefore, it seems that inclusion is working to an extent, but more clarity is needed with regard to adequate education, intervention and support for individuals with autism.

Keywords: autism, inclusion, population survey

Introduction

Creating an inclusive society is a dynamic process 'aimed at lowering economic, social and cultural boundaries, or making boundaries more permeable' (United Nations Department of Economic and Social Affairs (UNDESA) 2008; p. 5). Social inclusivity can be measured on a number of dimensions, including visibility and access to social interaction with others, consideration of needs and rights, such as the right to be different, to work and to participate in the cultural life of society, and the resources to enable people to exercise these rights (ibid.). An inclusive society therefore is one in which 'every individual, each with rights and responsibilities, has an active role to play'

(United Nations (UN) 1995; p. 68). Improving opportunities for social inclusion has been identified as a key objective for education as well as health and social care providers (Bamford 2005).

There are many barriers to a fully inclusive society and these vary according to the cultural and economic structures of communities; ultimately, inclusivity requires a strong public commitment. Against the background of requirements for social inclusion policies within United Nations member states (UNDESA 2010; United Nations Educational, Scientific and Cultural Organisation (UNESCO) 2013), Research reported here explored how far the public had adopted positive attitudes towards social inclusion of individuals with autism in regard to (i) visibility and

access to social interaction, (ii) causes, needs and interventions, and (iii) rights and resources, including the rights to be different, to work and to participate in the cultural life of society.

Autism spectrum disorder (ASD), a pervasive developmental disorder, is characterized by challenges in social communication, restricted interests and repetitive behaviours (American Psychological Association 2013). Prevalence of autism has been rising sharply and according to the UK-wide Millennium Cohort Study, that included data from $n = 18\,522$ families, is now estimated to be 3.5% children by the time they are 11 years of age (Dillenburger *et al.* 2015). The exact aetiology of autism is not known, although genetic as well as environmental factors, including the prenatal environment, clearly play a role (Medical Research Council (MRC) 2001; Szatmari *et al.* 2007). The quality of parenting (Yirmiya & Sigman 2001; Siller & Sigman 2002) and vaccinations have not been linked with autism aetiology (Wilson *et al.* 2003; Demicheli *et al.* 2012). The term 'high functioning' refers to individuals with autism who have an average or above average IQ, a high degree of independence, but socializing difficulties, while 'low functioning' refers to individuals who experience serious difficulties and lack of independence, co-occurring intellectual disabilities as well as significant problems in socializing (Baio 2012).

Although some still view autism as inevitably a lifelong disability (Rogers 1996; Mesibov *et al.* 2004; Klin *et al.* 2007), there now is sufficient evidence that, with early intensive interventions based on the application of behaviour analysis (Vismara & Rogers 2010; Orinstein *et al.* 2014), individuals with autism can reach ambitious outcomes to the extent that about 20% no longer meet diagnostic criteria (Seltzer *et al.* 2003; Fein *et al.* 2013).

Making friends constitutes one of the areas that cause problems for individuals with ASD. Only 1% of typically developing children do not have friends (Office for National Statistics (ONS) 2005; Swearer *et al.* 2012), compared to 42% of children with autism (Solish *et al.* 2010), although children with ASD are increasingly educated in mainstream classrooms (Wilkinson & Twist 2010) and some employers are now specifically seeking out staff on the autism spectrum (Vasagar 2013). Bullying is another major concern (Chamberlain *et al.* 2010; DCSF 2010); children with autism are four times more likely to be bullied than other children (Little 2002; Sofronoff *et al.* 2011). Strong reactions to being teased (Sofronoff *et al.* 2011) and atypical interests (Gray 2004) increase the risk of being ostracized. In special schools, bullying is less likely (van Roekel *et al.* 2010),

possibly because of greater acceptance of difference (Due *et al.* 2005) or higher teacher: pupil ratios (Zablotsky *et al.* 2013).

Mental health problems including anxiety, hyperactivity, self-injurious and stereotypic behaviours, low self-esteem, over sensitivity, and suicidal ideation (Batten *et al.* 2006; Cappadocia *et al.* 2012) mean that one quarter of children with autism self-harm or attempt suicide; twelve times more than other children (ONS 2005).

Unfortunately, things do not seem to get better as children with ASD grow up. Many adults with autism still have difficulty making friends (Howlin *et al.* 2004; Stewart 2008) and face social exclusion; over 50% report that they have been bullied or harassed at some point in their life (Rosenblatt 2008). Social ostracization does not reflect a lack of desire to have friends on the part of individuals with autism; on the contrary, the vast majority of adults and children with autism want to spend more time socializing (Bauminger & Kasari 2000; Stewart 2008).

Living actively and as independently as possible within the community is an essential aspect of inclusion, yet 44% of adults with autism live at home with their ageing parents, one-third live in residential care, and 17% lived in some form of supported housing (Broach *et al.* 2003). Over 70% of older caregivers (aged 60+ years of age) have not made any plans for the future of their adult son or daughter with disabilities (Dillenburger & McKerr 2011). The policy-based move away from residential or institutional accommodation has been welcomed but ultimately, its success depends on positive public attitudes towards inclusion.

Obviously, on legal grounds, individuals with ASD have the same rights as any other human being, including the rights to be different, to work and to participate in the cultural life of society (United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) 2006; United Nations Convention on the Rights of the Child (UNCRC) 1989; UNDESA 2008), but they may require individually tailored resources to be able to avail of these rights (Dillenburger *et al.* 2014b). For children on the autism spectrum, the necessary resources should largely be linked to early effective and evidence-based support and interventions at home and at school (National Autism Centre 2009). For adults with autism, attaining gainful employment is one of the best ways to ensure inclusion, social interaction and financial independence.

The right to protection from discrimination in employment, during training, recruitment and

continuing education, is enshrined in the UNCRPD (2006). Yet, Rosenblatt (2008) found that only 15% of adults with ASD were in full-time employment. These low employment rates are not a reflection of a lack of willingness to work, that is the majority of adults with ASD want to work (Barnard *et al.* 2001; Dillenburger & McKerr 2011), but those who find work are usually employed in low skilled, poorly paid jobs (Howlin *et al.* 2004). While undoubtedly employment on the 'open market' is the aim, supported employment programmes seem to enhance the chances of some adults with autism obtaining a well-matched job (Howlin *et al.* 2005).

Ultimately, unemployment is not only detrimental for the individual themselves, it actually represents 36% of the estimated annual cost of the £34 billion required for supporting adults with autism and their families in the UK (Buescher *et al.* 2014), with similar pro rata figures in the US and Australia (Ganz 2007).

Public attitudes

Raising public awareness of autism spectrum has been the focus of many autism charities and government policies, for example Autism Speaks' international Light it up Blue Campaign (2013) has global appeal and worldwide take-up. These campaigns seemed to have been rather successful, and recent research has shown that more than 80% of the public now are aware of autism and, for example, in Northern Ireland, approximately 50% of the general public actually have someone on the autism spectrum in their family or in their close circle of friends (Dillenburger *et al.* 2013). However, less is known about how the general public feel about individuals with autism or what their attitudes are towards inclusion.

To our knowledge, the only other large-scale general population survey of attitudes towards individuals with ASD to date is a French survey of 1000 people that showed that most people had positive attitudes towards individuals with autism (Durand-Zaleski *et al.* 2012). Given that this was a non-randomized open access online survey, it is not surprising that 100% awareness of autism was recorded, that is, only computer literate people who were aware of autism responded. This limitation probably explains many of the findings, for example more than 90% of the respondents felt that individuals on the autism spectrum would be able to live in the community and only 3% stated that they would not want their child to be in the same class at school as a child with autism.

When asked about employment issues, only about one quarter of the respondents believed that someone with autism was unable to work, and only 6% said that they would not be willing to work with someone with autism. Given the enormous difference in abilities across the autism spectrum, it is surprising that the French study did not differentiate between levels of functioning.

The French sample thought the likely causes of autism were genetics (44%), parent-child relations (22%) or the environment (11%). It is important to note here that in France, autism interventions are mainly carried out by psychiatrists promoting a psychoanalytic approach and outdated theories, for example the belief that autism is caused by the 'refrigerator mother' still prevails widely (Schofield 2012). Not surprisingly, when asked about the life course of autism most respondents were not optimistic and felt that lifelong support would be needed (61%). Only few of the respondents felt that with treatment someone with autism could lead a 'normal life' (25%).

In contrast, the present study was part of a representative large-scale general population survey, the Northern Ireland Life and Times (NILT) (ARK 2015) Survey that is carried out in Northern Ireland (NI) annually. In 2012, the NILT Survey included for the first time, questions related to ASD that examined awareness and knowledge of and attitudes and behavioural estimations towards individuals with ASD. Findings regarding public awareness and knowledge were reported elsewhere (Dillenburger *et al.* 2013). This article focuses on attitudes towards (i) visibility and social interaction, (ii) consideration of needs, and (iii) rights and resources.

Method

Participants

One thousand two hundred and four adults aged 18 years or over living in private households took part in the 2012 Northern Ireland Life and Times (NILT) survey (representing a response rate of 57%). Data were weighted by household size to make the data representative of the Northern Irish population (as per the 2011 NI Census of Population figures) (Devine 2013). The proportion of females was slightly higher than that of males (54.6% vs 45.6%); the age distribution was fairly normal, just over one quarter (27%) of the participants were 18-34 years of age, 52% were 35-64 years of age, and 21% of the participants were 65 years or older.

Research tool and procedure

The Northern Ireland Life and Times (NILT) Survey is an annual population survey that is carried out on a stratified sample of adults in Northern Ireland. The survey gathers demographic data on respondents, such as age and gender, and consists of a number of different modules, each year addressing pertinent community concerns. An ASD module was included for the first time in NILT 2012, focussing on public awareness, knowledge, attitudes and behaviours towards individuals on the autism spectrum in a variety of contexts including social, employment, education and housing. Participants completed the ASD module along with the other NILT modules. NILT modules primarily contain questions with fixed choice response options; some open-ended questions are also included. The main purpose of the survey is to produce reliable estimates of the public's attitudes rather than to explore attitudes in depth, this means that if a respondent replied 'don't know' or 'sometimes' to a question, no further information was sought.

A two-stage selection system was used. First, in a systematic random sampling procedure, 2346 Northern Irish private household addresses were selected from the Postcode Address File (PAF); second, in cases where more than one adult lived at the address, the person with the next due birthday was selected as respondent; if the chosen respondent was not available, a suitable alternative time was arranged for interview. Participants selected for the survey received a letter explaining the purpose of the study and providing contact details of the survey management team.

While the research team, in consultation with service users, autism charities and the funder, developed the survey questions, the persons carrying out the interviews were employed by an independent fieldwork agency that was unrelated to the researchers or the funders of the research. The interviewers were experienced in survey research and were trained in the use of the computer-assisted personal face-to-face interview techniques.

An iPad was used for data entry during the interview. The main questionnaire was completed by the interviewer registering participant responses on the iPad. In addition, a short self-completion questionnaire was completed by the respondent using the iPad themselves, although the interviewer could administer this questionnaire, if requested by the respondent.

NILT 2012, including the ASD module, was piloted with 60 respondents in August/September 2012. There

were no major changes to the final version of the ASD module. Main survey interviews were carried out from 1st October 2012 to 10th January 2013. Results for all modules, questionnaires, data sets, definitions and technical information are freely accessible on the NILT website (ARK 2015).

Data analysis

Data underwent an extensive range of inter- and intravariation logic checks, and results reported here have been weighted to account for household size. Data presented here are based on the 989 participants who said that they had heard of autism, autism spectrum disorder or Asperger's syndrome.

Results

Visibility and access to social interaction

Generally speaking, very positive attitudes were found towards children with autism; 93% of respondents said they would be comfortable if a family with a child with autism would move next door to them and 92% said they would feel comfortable if a child with autism were in the same class as their child. When asked about children with high functioning autism, the positive attitudes increased by another 4 % points in both cases.

With regard to adults with autism, the survey also identified very positive public attitudes. Most respondents said that they would feel comfortable if an adult with autism moved in next door on their own (83%), married a close relative (80%), or was a work colleague (81%). Nearly three quarters (71%) of participants stated that they would be comfortable if someone with autism was appointed as their boss. These figures increased to near 90% or above, when asked specifically about these issues with regard to individuals with high functioning autism.

Causes and interventions

The opinions expressed by the participants about what causes autism reflected the fact that, at present, no specific cause has been identified (Figure 1). Nearly two-thirds of participants did not think that autism was caused by environmental factors (59%); only very few people thought it was (7%). Similarly, very few participants thought that autism was caused by vaccines like MMR (7%). Respondents were split over the issue

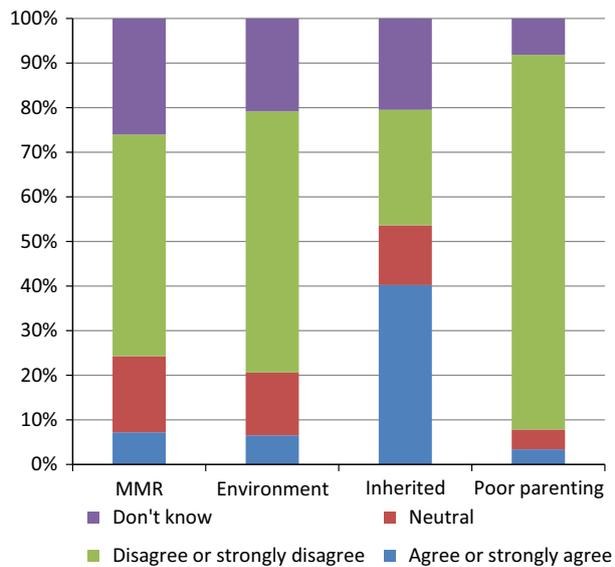


Figure 1 Beliefs about the causes of autism.

of genetic causes. While 41% of respondents thought that autism could be inherited, many disagreed (26%), were unsure (20%) or did not express an opinion (13%). Respondents agreed overwhelmingly that autism was not caused by poor parenting (84%); only 3% believed that autism was associated with the quality of parenting.

The public view of the lifetime trajectory for individuals with autism is influenced by the fact that autism is frequently defined as a 'lifelong disability' (Rogers 1996; Hill & Frith 2003; Klin *et al.* 2007) and autism charities (AutismNI 2015; NAS 2015). In fact, some intervention programmes are based on this concept of autism (Mesibov *et al.* 2004). The most recent NICE guidelines (2013) replaces the term 'lifelong', describing autism as 'a chronic disorder with lifelong disability in some individuals' (p. 26).

This use of the term 'lifelong' in the context of autism is intriguing because no other condition or disability is prefixed with 'lifelong', that is, we do not speak of 'lifelong Down Syndrome' or 'lifelong epilepsy'. The use of the term 'lifelong' with regard to autism originated from a concern that autism was viewed solely as a childhood disorder and is justified by the fact that there are many adults with autism. In spite of this, the term lifelong has the potential to put a cap on expectations and therefore a question was added to find out how the public felt about the term wanted to know how the public felt about the term 'lifelong' with reference to autism. As Figure 2 shows, more than half of

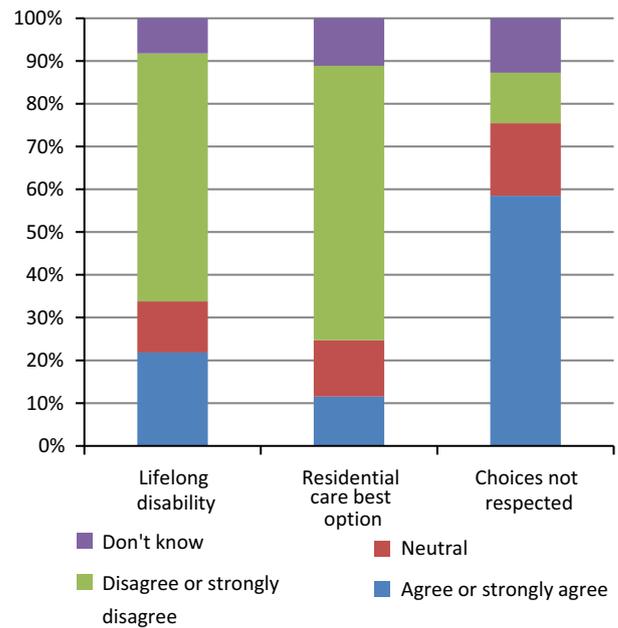


Figure 2 Attitudes towards lifelong issues including residential care and making independent choices.

respondents (58%) either disagreed or strongly disagreed that autism is a lifelong disability. The remaining respondents either agreed or strongly agreed with this statement (22%), were neutral (12%), or unsure (8%).

With regard to how the public viewed the potential for inclusion, social interaction and independence for individuals with autism, most respondents disagreed or strongly disagreed with the statement that residential care was the best option for someone with severe autism and their families (64%) and relatively few participants strongly agreed or agreed with that statement (12%). Most participants either agreed or strongly agreed (58%) with the statement 'when someone has autism their choices are not respected enough', while 17% were neutral, 13% were unsure, and 12% disagreed or strongly disagreed.

Consideration of needs

Regarding interventions or treatment for autism, 50% of the participants thought that drug treatments were effective, while the other half of respondents either disagreed, were neutral or unsure (Figure 3). Participants showed strong support for behavioural interventions with over three quarters (77%) agreeing that behavioural interventions were effective. Very few

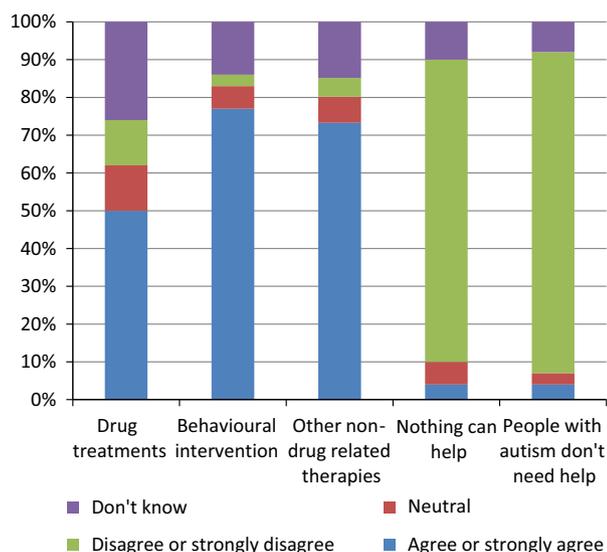


Figure 3 Views on support and intervention for people with autism.

participants disagreed with the statement that behavioural interventions were effective; some respondents did not know. Concerning other non-drug related support, nearly three quarters (74%) thought that other non-drug treatments could be effective, although some disagreed or did not know. Of course, these data are not evidence of effectiveness; instead they are merely evidence of public perception of need. The vast majority of respondents (80%) disagreed with the statement that there was nothing that can help individuals with autism. Very few participants thought that individuals with autism did not require some kind of help or intervention.

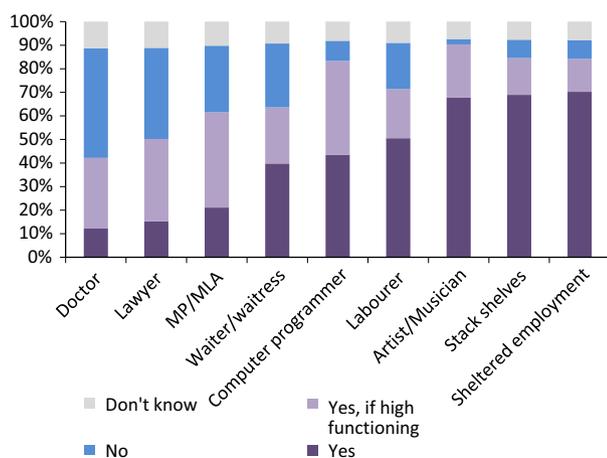


Figure 4 Views on the suitability of different job types for individuals with autism.

Rights and resources

An important factor with regard to inclusion is public perception of ability of individuals on the autism spectrum to function in a socially relevant employment setting. Participants were asked to indicate which jobs they felt individuals with autism, especially those who were high functioning, could perform satisfactorily. We included a list of jobs (Figure 4), ranging from relatively low skilled, to manual, and to highly skilled, to explore whether the public viewed certain types of jobs as suitable for someone with autism.

The majority of the public agreed that the following jobs could be suitable especially for someone who was high functioning: computer programmer (83%), artist/musician (90%), shelf stacker (85%), sheltered employment (84%), labourer (71%) or waiter/waitress (64%). However, there was less agreement amongst respondents as to suitability for individuals with autism for some highly skilled and socially demanding and responsible jobs, such as doctor (42%), member of the parliament or assembly (62%), and lawyer (50%), although many felt that these jobs could be suitable for high functioning individuals with autism. The public also felt that some jobs are suitable for someone with autism regardless of level of functioning (for example, artist/musician).

Friedman's ANOVA revealed a significant difference in the suitability ratings that the public assigned to the nine professions ($\chi^2(8) = 2457.41, P < 0.001$). Post hoc analysis using Wilcoxon's tests indicated little to negligible difference (all small effect sizes) between attitudes towards the appropriateness of jobs such as artist/musician, stacking shelves and sheltered employment. Relative to member of parliament/assembly, lawyer and doctor, significantly higher suitability ratings ($P < 0.001$) were found for artist/musician ($r = 0.46-0.52$), stacking shelves ($r = 0.44-0.50$) and sheltered employment ($r = 0.44-0.51$), all comparisons produced medium to large effect sizes. The public also rated artist/musician ($r = 0.28-0.37$), stacking shelves ($r = 0.22-0.35$) and sheltered employment ($r = 0.25-0.35$) as more suitable than labourer, programmer and waiter, albeit to a lesser extent as evidenced by the more modest effect sizes.

Considering the potential of business owners worrying about losing business if they employed someone with autism, the relatively innocuous example of a 'supermarket' was used as a business that is frequently used by nearly everyone and where most staff have direct contact with customers. Respondents

were asked how it would affect their shopping behaviour if a supermarket decided to introduce a policy on employing people with autism. While the majority of respondents (86%) said that if a supermarket employed someone with autism, it would make no difference to them, more than one in ten of the respondents said that they would be more likely to shop in a supermarket that employed someone with autism (12%). Less than 1% of people said that they would be less likely to shop in a supermarket that employed someone with autism.

Over three quarters of participants felt that individuals with high functioning autism should definitely (46%) or probably (32%) be encouraged to live independently, while 83% of the respondents felt that they should definitely (49%) or probably (34%) be encouraged to learn to drive a car.

Discussion

A general population study was conducted to explore attitudes of the general public regarding inclusion of individuals with autism; 1204 adults completed the survey in Northern Ireland; 82% ($n = 989$) respondents were aware of autism and their views were explored regarding autism and (i) visibility and access to social interaction, (ii) consideration of needs, and (iii) rights and resources.

Results showed that the general public was accepting and comfortable with living, working and educating inclusively together with individuals with autism. In general, positive and inclusive attitudes and a commitment to a more inclusive society were expressed with regard to the participation of children and adults with autism in community and social life. Positive attitudes were expressed towards parents who have children with autism, with very few members of the public still believing that poor parenting could cause autism. Instead, consistent with Durand-Zaleski *et al.* (2012) in France, the public in Northern Ireland were most likely to think that autism is inherited, a proposition that has at least some levels of scientific support (MRC 2001).

With respect to social interaction and participation in community life, the vast majority of NILT respondents thought that there would be a need for some degree of support, depending on the particular individual. These views were consistent with the research in the area (Stewart 2008; Keenan *et al.* 2010). However, many of the participants thought that drugs would be effective. This view is out of line with the fact that there are no

drugs that effectively treat the core features of autism (Warren *et al.* 2011).

There was strong support for behaviour-based interventions. This is encouraging, since nearly all evidence-based interventions are based on the scientific discipline of applied behaviour analysis (National Autism Centre 2009; Behavior Analyst Certification Board 2013; Dillenburger 2015). However, there also was support for eclecticism and 'other' non-pharmacological interventions that have been shown to lack effectiveness (Howard *et al.* 2005). This finding is not surprising given the persistent misrepresentation of behaviour analysis-based interventions (Jordan 2012; Howlin 2013) and the resultant reluctance of NI government and public bodies to embrace international best practice, while stubbornly promoting an ill-defined eclectic approach (Task Group Report on Autism; Department of Education 2002). Therefore, the public view expressed with regard to eclecticism may not represent that held in jurisdictions that have embraced behaviour analysis as the basis for interventions, such as most of USA and Canada (Keenan *et al.* 2014).

The idea that autism is necessarily a lifelong disability was not supported in the public view. This is interesting, given prevailing medical approach that persistently views autism as lifelong disability (NICE 2013) despite research findings to the contrary (Helt *et al.* 2008; Fein *et al.* 2013; Orinstein *et al.* 2014). It seems that the public is more ambitious, yet realistic, for individuals with ASD than governments or professionals. This positive pro-active public attitude is supported by parents' experiences (Lamb 2009; Dillenburger *et al.* 2010, 2015) and scientific evidence (Helt *et al.*, 2013).

The right to work is another important dimension of inclusion and individuals with autism clearly face many barriers to employment as evidenced by the employment rate of only 15% (Rosenblatt 2008). In order to gain employment, individuals with autism may need specific help and personal support and, once they have found a job, they may need ongoing support getting to work, adjusting to the employment setting and relating to their co-employees. Employers and employees need training relating to possible idiosyncrasies of their new work colleague and the resources to facilitate these adjustments are not always easily available (Forsythe *et al.* 2008; Bancroft *et al.* 2012).

It was encouraging to see that the vast majority of survey respondents would be comfortable working with someone with autism. This was consistent with findings in other attitude surveys (Stewart 2008; Durand-Zaleski *et al.* 2012) as was the fact that NILT respondents

considered all kinds of jobs suitable for individuals with autism, especially if the individual was high functioning (Howlin *et al.* 2005).

A highly significant finding for employers was the fact that 12% of respondents stated that they would be more likely to give business to an employer who actively employs people with autism. Thus, employers should feel confident about actively employing people with autism. A good example is the German software company SAP (Systems, Applications, and Products in Data Processing), who actively seek to employ individuals with autism (Vasagar 2013). This firm has recognized and is confident that individuals with autism can offer a unique contribution to the productivity of the firm through their often enhanced attention to detail and accuracy in data analysis. SAP have entered into partnership with Specialisterne, a Danish recruitment company for people with autism; Specialisterne currently has branches in Germany, Iceland, Switzerland, the United States and the Republic of Ireland (Thygesen 2012; Hodson 2013; Dillenburger *et al.* 2014b). Another example is Vodafone Germany in partnership with Auticon, who specialize in placing and mentoring people with autism in employment in the information technology industry (Evans 2013). Smaller localized examples also exist, such as The Undiscovered Workforce campaign currently run by the NAS in Cambridge that brings together people with autism and local employers (Huppert 2013). Clearly, public attitude supports these efforts.

An inclusive society takes into consideration the right to fully participate in the social and cultural life of the community. Result reported here showed that most people disagreed that residential care was the best option for someone with severe autism and their families. These views are consistent with the preferences of families (Taggart *et al.* 2012) and Government policy (Department of Health, Social Services & Public Safety 2010, 2011; Northern Ireland Executive 2012).

More than half of the respondents felt that the rights of individuals with autism were not respected enough. These views are not surprising in view of the social and communication difficulties that define the condition and the fact that only one in ten adults with autism receive advocacy support, fewer than half of those who need an advocate (Broach *et al.* 2003).

Conclusion

To conclude, results reported here represent the attitudes and opinions of adults in the general population in

Northern Ireland. Similar surveys are underway to explore views of young people and children.

Survey findings are by definition self-reports; they do not necessarily imply positive behaviours (Lloyd 1994). Individuals with autism still are commonly bullied in schools and in the workplace (Rosenblatt 2008; Bancroft *et al.* 2012). It could be the case that, as in most cases of bullying, these are the actions of only a few people with negative attitudes towards individuals with autism. It is also possible that people express positive attitudes but their public behaviours are intentionally or unintentionally incongruent with these attitudes. Research has shown a long time ago that the correspondence between what people say and what they do (say-do correspondence) is generally weak (Lloyd 1994), and that perceived 'social desirability' in face-to-face interviews can affect responses (Richman *et al.* 1999) These are difficult but important questions to address in future research.

In the meantime, in terms of visibility, access to social interaction, needs, rights and resources, the general public in Northern Ireland have expressed broadly inclusive attitudes and general acceptance of individuals with autism, and acknowledged the right to participate in the social, educational and employment life of the community. Building on these relatively positive public attitudes will require accurately targeted, evidence-based support from both statutory and voluntary agencies to ensure that individuals with autism can play an active role in a truly inclusive society.

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