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SHORT REPORT

Children's attitudes toward their peers with Down Syndrome in schools in rural Ireland: an exploratory study

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Increasingly, children with Down Syndrome are attending mainstream schools, but evidence suggests that these children are more prone to peer rejection and other problems when compared with their non-disabled counterparts. However, relatively little is known about children's attitudes toward their peers with moderate to serious learning disabilities, including Down Syndrome. This study assessed the attitudes of non-disabled primary school children ($n = 118$) in mainstream education toward their peers with Down Syndrome. A secondary aim was to assess whether exposure to audiovisual material promoting inclusion had any immediate effects on overall attitudes. A cross-sectional, questionnaire-based survey was administered in four rural-based schools. The results showed that female participants over 10 were the most sociable. Overall attitudes toward inclusion were consistently and statistically significantly more negative than those toward sociability. Other factors, such as contact with peers with Down Syndrome, were not related to attitudes. Neither was there any change in overall attitudes following exposure to the promotional material. Further work is needed to identify factors underpinning the attitudes of non-disabled children to their peers with Down Syndrome and how best to promote inclusion in mainstream schools.

Keywords: Down Syndrome; social inclusion; attitudes; children

Down Syndrome is the most frequent cause of moderate to severe learning difficulty/disability (LD) in children (Buckley 2000). These vulnerable young people are more likely than their non-disabled peers to experience peer rejection, depression, anxiety, behavioural/conduct problems, delinquency, school drop-out and poor academic adjustment (e.g., Laws et al. 1996; Wenz-Gross and Siperstein 1996). Furthermore, the extent to which these young people experience fully inclusive education has been the subject of considerable debate in recent years. Peer attitudes are one important factor that may impinge upon the successful inclusion of children with special educational needs (SEN) in school settings (Roberts and Smith 1999). However, few studies on peer attitudes have been conducted in the UK (Buckley 2000; Laws and Kelly 2005), or Ireland (Gash et al. 2000). The primary aim of this study was to assess the attitudes of non-disabled children toward their peers with Down Syndrome who were attending rural schools in Ireland. A secondary aim was to examine the short-term

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impact on attitudes (if any) of administering a video designed to promote inclusive attitudes toward children with Down Syndrome.

Inclusive education

Within the last 10–15 years, it has become increasingly common for children with Down Syndrome to attend mainstream schools (Cuckle 1997). Government policy in the Republic of Ireland has, for some time now, recommended the integration of pupils with LD into mainstream education (Department of Education and Science [DES] 1993, 1995, 1996). The Education for Persons with Disabilities Bill (DES 2003) also protects the constitutional rights of children with disabilities and special needs to appropriate and inclusive education. However, this bill has many critics and the extent to which it fully supports children with SEN is uncertain (Scanlon and McGilloway 2006). Furthermore, under the Education for People with Special Educational Needs Act (DES 2004), children with SEN are now taught in the same classroom as their peers without special needs, unless it is impractical to do so. Despite these policies, a recent Irish case study raised questions about the model of support for inclusive education in Ireland (Ring and Travers 2005). This research focused on a pupil with SEN in a mainstream rural primary school and explored, in particular, peer perceptions of the pupil (and vice versa), the impact of peers on the child with SEN and access to social and curricular activities. The findings suggest a generally low level of knowledge and understanding around LD amongst non-disabled students, whilst there was also some uncertainty about the extent to which the pupil in question was appropriately socially included.

Social relationships

The social relationships of a child with Down Syndrome, or other SEN, is often the single area of school life about which parents and carers are most apprehensive (Cuckle and Wilson 2002). Unsurprisingly, therefore, exposure to peers and opportunities for friendships in the local community are frequently the main reasons why parents send their children with SEN to the local primary school (Nakken and Pijl 2002). Helmstetter, Peck, and Giangreco (1994) examined the effect on social interaction of contact with students with SEN in a high school. They concluded that non-disabled children who had previous contact with a child with SEN, had more positive attitudes toward them and viewed their inclusion more favourably than their peers without such experience. This research is even more crucial when considered within existing evidence, which suggests that children with Down Syndrome are especially dependent on the opportunities for social activity created by their families and are less likely than non-disabled children to rely on peers for social support (Sloper et al. 1990; Wenz-Gross and Siperstein 1996).

Peer acceptance and attitudes

One important aspect of social relationships relates to peer acceptance and attitudes. Laws et al. (1996) examined the popularity of 8–11-year-old children with Down Syndrome ($n = 16$) in mainstream schools based on the views of their peers in the same class ($n = 122$). The results showed that the majority of those with Down Syndrome were averagely popular and were chosen as friends as frequently as other

children in school. Although these findings are encouraging, it was also reported that the children with Down Syndrome were less likely to be described as a 'best friend', or to be invited to a friend's house after school. Thus, there would appear to be a need to develop opportunities for genuinely reciprocal friendships. However, it is important to note that children with Down Syndrome are a heterogeneous group. Thus, their skills, level of LD, temperaments, interests, health conditions, and the presence or absence of other physical or sensory disabilities will differ in a number of ways (Cuckle 1997). Therefore, it is perhaps not surprising that attitudes to Down Syndrome have been shown to be complex and that sometimes contradictory views of the condition are held (Bryant, Green, and Hewison 2006).

According to Gash et al. (2000), the attitudes of schoolchildren toward each other are socially constructed and different aspects of these constructions have important implications for the quality of their school-life. Furthermore, it has been suggested that children's expectations of friendship grow in stages (Bigelow 1977). For example, between six and seven years ('reward-cost stage'), children expect friends to offer assistance and share in common activities whilst between the ages of eight and nine ('normative stage'), expectations relate more to seeking admiration and loyalty and sharing values and attitudes to rules. It has been argued that the developmental delays experienced by children with Down Syndrome may lead to difficulties in gaining peer acceptance (Gash et al. 2000) because they do not progress through these stages at the same rate as their non-disabled peers. Additionally, the authors argue that this may explain the expression of negative attitudes in similar previous studies (Gash 1993, 1996; Gash and Coffey 1995). Nonetheless, it has been found that the negative attitudes of non-disabled children toward their peers with LD may be successfully altered. For example, Clunies-Ross and O'Meara (1989) reported that positive attitudes toward children with disabilities can be nurtured through systematic intervention strategies aimed at raising awareness of, and dispelling false beliefs about, LD and facilitating social interaction between those with and without LD. However, the maintenance effects of such interventions have been called into question (e.g. Cole et al. 1986) and further work in this area is required.

Method

A convenience sample of 118 children (54 males and 64 females) was drawn from six rural mainstream primary schools in north Kildare (located in the eastern region of Ireland, approximately 30 km from Dublin). Participants were recruited from 12 Third and Fourth Classes and were aged between eight and 11 years ($M = 9.35$; $SD = 0.72$). Classes which included children with LD were, for ethical reasons, excluded from the study. Data were collected during the Social Personal Health Education (SPHE) class in each school. The specific objectives of this module for Third and Fourth Classes involve acknowledging the importance of friendship and the practice and recognition of the value of care and consideration, courtesy and good manners when interacting with others (Government of Ireland 1999). The sample size and age-range of the children were considered appropriate in view of similar studies conducted elsewhere (e.g. Laws et al. 1996; Roberts and Smith 1999; Gash et al. 2000). The parents of all children were contacted prior to the study and their consent sought on an 'opt-out' basis.

Participants were asked (as a group) to complete two questionnaires. Firstly, a brief Background Questionnaire (BQ) was devised to elicit details on age, sex, number of children in family, position of the child in family and participants' experience of a

friend or relative with Down Syndrome. Secondly, participants completed an Attitude Questionnaire (AQ) at two points in time; this is based on a slightly modified version of a questionnaire devised by Gash (1993) to examine attitudes towards children with SEN. For purposes of the current study, the term 'Mental Handicap' in the original version of the questionnaire was replaced by 'Down Syndrome'. This 20-item measure comprised two 10-item scales which assessed: (1) the sociability of non-disabled children toward their peers with Down Syndrome (Scale 1) (e.g., 'Would you chat to the child at break-time?'); and (2) the views of non-disabled children on the inclusion in schools of children with Down Syndrome (Scale 2) (e.g., 'Should children with Down Syndrome have their own special school where all the children have Down Syndrome?'). Participants respond 'yes' or 'no' to each statement; a 'yes' response was scored as 1, whilst a 'no' response was scored as 2 so that higher scores reflect more negative attitudes. The Cronbach alphas for Scales 1 and 2 in this study were 0.69 and 0.64, respectively, which suggest fairly good reliability overall.

A brief excerpt from a video entitled *Including Children with Down Syndrome in Your School* (Down Syndrome Ireland 2004) was shown upon completion of the first AQ. This 10-minute excerpt depicts children with Down Syndrome in an inclusive classroom, participating in everyday school activities such as reading, writing, spelling and singing. The literature accompanying the video provides general information on inclusion strategies and benefits, the learning profile of a child with Down Syndrome (e.g. reading, writing) and their motor skills and behaviour. After viewing the video, participants were invited to complete the AQ for a second time.

Results

The pattern of scores on the AQ was broadly similar across both time points in relation to all key variables, although scores on Scale 2 (attitudes toward inclusion) were consistently higher (i.e. more negative) than those for Scale 1 at both time points (Table 1). Firstly, it was thought that the number of children in the family and the place of each child in the family may have a bearing on attitudes. We found that those who were middle children had the lowest mean score on Scale 1 (at both time points) while those who were only children obtained the highest mean scores overall. The youngest children in the group (≤ 9 years) also attained marginally higher scores than those aged 10 years and over. Statistical analysis showed that scores on Scale 2 were statistically significantly higher than those on Scale 1, both before the administration of the video ($p = 0.000$; eta squared = 0.73) and afterwards ($p = 0.000$; eta squared = 0.73). The lower (i.e. more positive) Scale 1 scores indicated more favourable attitudes toward sociability than toward inclusion in general.

Two independent t -tests were carried out to compare males ($n = 54$) and females ($n = 64$) on their Scale 1 and Scale 2 scores. The results indicated that there were no statistically significant differences between the two groups on either scale ($p > 0.05$). A two-way between-groups analysis of variance (ANOVA) was conducted to explore the impact of both age and sex on levels of sociability as measured by Scale 1 of the AQ. Participants were divided into three groups depending on their age (≤ 9 years, 10 years, and > 10 years). The results showed a statistically significant interaction effect [$F_{(2, 118)} = 5.43, p = 0.006$] suggesting a difference in the effect of age on sociability for male and female participants; thus, females in the oldest (> 10 years) group were the most sociable toward their peers with Down Syndrome. A significant main effect was also found for sex [$F_{(1, 118)} = 10.0, p = 0.002$] and this effect was moderate (0.82)

Table 1. Mean Attitude Questionnaire scores by background variables.

Background variable	Time 1		Time 2	
	Scale 1	Scale 2	Scale 1	Scale 2
Gender				
Male	12.46	16.07	12.39	16.20
Female	12.16	15.55	12.16	15.75
Age-group				
≤ 9 years	13.17	16.50	14.83	16.83
10 years	12.28	16.19	12.33	16.58
> 10 years	12.80	15.80	12.60	16.20
Position in family				
Oldest	12.55	15.95	12.45	16.10
Youngest	12.19	15.58	12.02	15.65
Middle child	11.93	15.72	11.83	16.03
Only child	13.17	16.50	14.83	16.83
Number of children in family				
1	13.29	14.86	13.86	15.57
2–3	12.19	15.84	12.19	16.01
4–5	12.32	16.02	12.26	16.30
Friend/relative with Down Syndrome?				
Yes	12.24	15.76	11.95	15.47
No	12.33	15.80	12.41	16.19
Total (group as a whole)	12.30	15.79	12.26	15.96

according to Cohen's (1988) criterion. Another similar two-way between-groups ANOVA was conducted to investigate the influence of sex and age on attitudes towards inclusion as measured by Scale 2 of the AQ. However, no significant differences were identified ($p > 0.05$).

A further one-way between-groups ANOVA revealed no differences on either scale between the different positions of children in the family (i.e., oldest, youngest, middle and only children). Similarly, an independent t -test was conducted to compare the mean scale scores of those with ($n = 38$) and without experience of a friend, or relative with Down Syndrome ($n = 80$), but no statistically significant differences were found.

Analysis at Time 2

Two dependent t -tests were used to assess whether Scale 1 and Scale 2 scores of the AQ had changed following exposure to the video. However, no statistically significant differences were found on either scale between both time-points ($p > 0.05$).

Discussion

This study was cross-sectional in nature and, as an exploratory piece of work, was necessarily constrained by time and resources. A larger, longitudinal study would

help to assess any changes in attitude over time (perhaps also using the AQ) across a range of settings whilst also elucidating the relationship between age and attitudes. However, the study reported here is one of the first studies of its kind in Ireland and existing evidence points toward considerable variation across countries in terms of integration (Meijer 1998). The findings add support to the small, but growing literature which shows higher levels of sociability amongst females toward their disabled peers (Gash 1993; Farrell 2000; Gash et al. 2000). For instance, Farrell (2000) found that girls tend to hold more favourable attitudes than boys towards those with LD and that these are even more positive in integrated schools. This may also increase with age, although Nowicki (2006) suggests that girls and boys may differ in how they respond to attitude scales and that these differences may indicate gender-based response biases rather than gender differences *per se*. This may also explain, at least in part, the lack of differences between the younger males and females in the current study. However, the research findings in this respect are mixed and it is not clear, at this stage, to what extent age and attitudes are related (Gash and Coffey 1995).

Another finding of particular interest in this study was the absence of any differences between those children who had a friend or relative with Down Syndrome and those who did not. It was thought that those with such contact might hold more favourable attitudes, particularly in relation to sociability (e.g. in line with the 'social contact hypothesis' [Allport 1954]). However, this finding contradicts some other work including a study by Helmstetter, Peck, and Giangreco (1994), who found that non-disabled children who had previous contact with a child with SEN had more positive attitudes toward those with SEN and viewed their inclusion more favourably than those without such experience. By contrast, Scheepstra, Nakken, and Pijl (1999) reported that almost half of 23 students with Down Syndrome in a Dutch integrated mainstream school, were rejected by their non-disabled peers. Some authors have argued that contact alone between children with Down Syndrome (and other LD) and their non-disabled classmates is not sufficient to promote positive attitudes, but more research in this area is required. In the current study, it was also thought that family size or a child's place in the family, may affect overall levels of sociability and perhaps also attitudes toward other children with Down Syndrome. For example, children in larger families may be generally more tolerant of differences, but no differences in sociability or inclusion were found in this respect and we were unable to locate other research that has examined this characteristic in relation to attitudes toward Down Syndrome.

A considerable body of evidence suggests that children and early adolescents can provide reliable information regarding their personal relationships and their social and emotional functioning (e.g. Jolliffe et al. 2003). Consequently, the findings reported here may be due, in part, to the possibility that some of the items on the AQ do not reflect accurately the ways in which children relate to each other. Gash et al. (2000) argue that the AQ reflects attitudes in observable ways and has validity, but further work is needed to establish the psychometric properties of the AQ. Nonetheless, this measure was chosen for the current study because it was brief and easy to complete and contained age-appropriate language; moreover, no other similar measure could be identified from the literature.

One of the limitations of the current study was the reliance on a convenience sample of children attending schools only in rural settings. The sample was of a reasonable size, but it is possible that the attitudes of children in larger schools based

in cities or towns may differ from those of children in typically smaller rural settings. Future research could expand data collection across a mixture of urban and rural settings and contexts in order to enhance the generalisability of the findings. For example, Nowicki (2006) argues that studies of attitudes similar to those assessed here might yield different results if conducted in other contexts, such as playgrounds or sports venues. Another limitation of this study, and one that was beyond the researchers' control, was the short time period between the video and the second AQ. Ideally, the second AQ should have been administered much later after presentation of the video (e.g., two weeks), but this was not possible. This may also have led to some degree of response bias in that some children (particularly the older group) may have become aware of the purpose of the video (because it was administered so soon after the first AQ) and perhaps adjusted, or declined to adjust, their responses accordingly. However, there were a number of measures put in place (insofar as possible) to try to control for this. For example, the children were instructed on several occasions to provide their own responses honestly and without consulting others, or viewing the questionnaires of other participants. Both the class teacher and researcher were also present at all times. It could also be argued that further follow-up work to such a video would be required to effect a meaningful long-term change in attitudes.

It is important to note that methodological differences across studies prevent accurate and reliable cross-comparisons. For example, according to Gash (1996), there is considerable uncertainty about whether an improvement in attitudes is because of a change in the feelings about a child with LD, or if a child's view of LD changes depending on the nature of the disability (e.g. mild or profound). The image of a profound LD may evoke fear in young people with little experience of others with LD. Therefore, if a child's idea or image of LD changes from profound to mild, one may predict an improvement in the image. Much additional research is required to disentangle the potentially complex interplay of factors that may impact on overall attitudes. There is considerable scope for conducting qualitative research in particular. For example, Francis and Muthukrishna (2004) used unstructured interviews to explore the experiences of primary school children with disabilities in South Africa. This paper raised some interesting questions in relation to growing up with a disability, including cultural attitudes and the role of social relationships. Similar research conducted in Ireland and elsewhere could prove valuable.

In conclusion, it is important to reiterate the assertion by Gilmore, Campbell, and Cuskelly (2003) that, in order to promote and maintain the acceptance of children with LD (including Down Syndrome) in school settings and within the wider community, accurate information and optimistic, but realistic, expectations are vital. Reassuringly, Gash et al. (2000) reported that Irish children (and their Spanish counterparts) were more favourably disposed toward inclusion than children from France or Portugal. However, the findings reported both here and elsewhere illustrate, above all, that the attitudes of non-disabled children toward their peers with Down Syndrome (and other LD) are complex. A need for further research is highlighted, not least to address some of the inconsistencies and methodological variations that tend to characterise this area.

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