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Growing Up with Dyslexia

Interviews with Teenagers and Young Adults

S. GUNNEL INGESSON

Department of Psychology, Lund University, Sweden

ABSTRACT Interviews with 75 teenagers and young adults were performed to investigate how young people with dyslexia experienced school in terms of well-being, educational achievement, self-esteem, peer relations and belief in their future. Results from earlier studies suggest that secondary emotional problems are common. The first six grades in school were experienced by the interviewees as full of distress and failure for a majority. Though peer relations were often good, many had experienced bullying. As they grew older, problems were more limited to reading and writing activities. This was thought to be an effect of acknowledgement and compartmentalization of the disability along with choices of school curricula and occupations in line with subjects' talents and capacities. Academic self-esteem seemed low, and most subjects had chosen vocational programmes in secondary school and had decided not to go to college. The most optimistic subjects were those who had finished school and were permanently employed. Early diagnosis along with careful explanation of the disability was recommended as well as the encouragement of dyslexic children in areas where they can do well and which makes them view themselves positively.

KEY WORDS: developmental dyslexia; emotional adjustment; peer relations; self-esteem

Introduction

The purpose of this study was to investigate how a group of Swedish teenagers and young adults describe their youth, with special focus on the psychosocial experience of growing up with dyslexia. There are many scientific reports outside Scandinavia indicating that emotional distress and deviant behaviour accompany dyslexia in children and teenagers (Beitchman and Young, 1997; Boetsch et al., 1996; Casey et al., 1992; Feldman et al., 1993; Huntington and Bender, 1993). It has

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also been shown that young people with dyslexia manifest lower self-esteem than others (Bender and Wall, 1994; Burden, 2005, Hughes and Dawson, 1995; Humphrey and Mullins, 2002; Palombo, 2001; Riddick et al., 1999; Undheim, 2003).

The abundant biographic literature is filled with school memories of shame and feelings of inferiority. Peer relationships have also been shown to be an area of consideration. Friendships help children develop an image of themselves as competent and valued (Bishop and Inderbitzen, 1995; Furman and Buhrmester, 1985; Furman and Robbins, 1985). Children with dyslexia and learning disabilities are at an increased risk of loneliness and being bullied and teased (Bender and Wall, 1994; Hellendoorn and Ruijssenaars, 2000; Valås, 1999), which may be devastating for their developing self-concept (O'Moore, 2000; Sharp, 1996).

Another question is what impact dyslexia has on choice of education and subsequent occupation. Do young people with dyslexia avoid academic studies on account of their difficulties? In the Taube (1988) study, students with reading and spelling difficulties had lower aspirations for future occupations and had also chosen less theoretical courses in upper secondary school than the students who had overcome their difficulties.

Over the past few decades there has been considerable research interest in dyslexia in Sweden and major efforts have been made to remedy children's difficulties, as well as work to improve society's attitudes to learning disabilities. However, contemporary research on the psychosocial consequences of dyslexia is scarce. Swedish research, relevant to the present study, was performed by Taube (1988) who showed that young students' reading and spelling performance affect their self-concept of ability. Zetterqvist-Nelson (2003) pointed to the complexity of reactions to being labelled dyslexic and the significance of the personal meaning that the child assigns to the diagnosis. Therefore, the subjects' reactions to the dyslexia diagnosis were also investigated in the present study. Westling-Allodi (2002) found that good peer relations compensated for students' difficulties.

Apart from the limited amount of Swedish research, another reason for performing this study was that research on children and young people with dyslexia is frequently based on parent and teacher ratings and rarely on accounts by dyslexic young people themselves. This study involves 75 young men and women diagnosed with dyslexia in the latter half of the 1990s, and is focused on the subjects' own memories and experiences of school and how they experience their current situation. The interviews were performed in 2004.

Methods

The dyslexia diagnosis

At the time of the initial assessment of the studied group, the diagnostic standard used was the so-called discrepancy criterion, in accordance with the ICD-10 (WHO, 1992) and DSM-IV (APA, 1995) diagnostic manuals. According to this criterion, a significant discrepancy between intelligence on the one hand, and reading and writing ability on the other, denotes specific reading and writing difficulties. In these cases a prediction of reading level had been made from the Full Scale IQ and if the reading and spelling attainment was two or more years below, compared to a group of normally achieving children, the children were regarded as dyslexic.

Participants

Children in Sweden start school at the age of 6 or 7. The subjects in this study had started at 7. Elementary school comprised the period of 7–10 years of age, middle school 11–13 years, secondary school 14–16 years, and upper secondary school 17–19 years.

In total, 75 persons were interviewed. The date of diagnosis was between 1994 (when the clinic opened) and 1999, the latter chosen as an end-point to ensure a follow-up time of at least three years.

The first criterion for inclusion was a full test protocol established at first assessment in the dyslexia clinic where the study was carried out. The purpose of this was to also investigate test–retest change (Ingesson, 2006). One hundred and seventy-four individuals met this condition. Secondly, the dyslexia diagnosis had to be stated in the subject's medical record, in accordance with the diagnostic criteria above; and thirdly, the subject should not have any additional diagnoses, such as ADD or ADHD. These kinds of dysfunctions might lead to considerable adjustment difficulties.

After going through their medical records, 100 remained. The children had originally been referred either by a school official, a paediatrician or by their parents, which resulted in an unselected group and meant that more than one-third did not meet the selection criteria. In addition, two persons had died, and one was severely ill.

There was a total dropout rate of 25 individuals. Two individuals could not be reached, ten persons declared that they did not have time, and that they had no remaining problems with reading or writing, and finally 13 refused to participate without giving a reason. Of the 75 subjects, 65 were interviewed in person and ten, who were unable or unwilling to come to the clinic, were interviewed by telephone.

Mean age at diagnosis had been 12 years and at interview it was 19 years (range 14–25). There were 27 female and 48 male subjects, which

corresponds to the finding of a male predominance of dyslexia (Høien and Lundberg, 1999). Thirty-eight percent had grown up with only one parent (in all but two cases with the mother), which compares well to 37 percent in the Swedish population (SCB, personal communication with K. Lundström, 12 December 2004). On account of this, the educational level of only the mothers was recorded, and was found to be evenly distributed, irrespective of marital status; 35 percent had attended secondary school only, 30 percent had passed upper secondary school and had received vocational training and 35 percent had a college degree.

The participants still experienced reading and writing difficulties to a varying degree, all having problems with at least slow reading and poor spelling. All subjects had received some special education, but none had attended a special class or school for dyslexic children.

At the time of the interview, almost two-thirds of the subjects were receiving some kind of education (See Table 1). Of the 39 subjects who had finished upper secondary school, only five, or 13 percent, had chosen to go to college, which is well below the general Swedish population, where 43 percent of all students enter college or university within three years of leaving upper secondary school (SCB, 2005).

Table 1 *Participants' occupation at the time of interview*

In education (all levels) ($n = 47$)	
Secondary school	9
Upper secondary school	27
Adult secondary school *	6
University	5
Not in education ($n = 28$)	
Unemployed	4
Military service	2
Temporary employment	7
Permanent employment	15

* Swedish 'KomVux' or 'Folkhögskola'

Interviews

Since the subjects had reading difficulties, the interview was chosen as a method to obtain as much information as possible. This also made it possible to check that the questions were fully understood. The interview comprised the following themes, along the lines of earlier research accounted for above; success or failure in school, feelings of well-being in school, reactions to the diagnosis, the impact of dyslexia on school accomplishments, self-esteem, peer relations and on present situation. Self-esteem in this context is not an unambiguous concept, but was

allowed to carry the meaning that the subjects in the study attached to it. Questions concerning acceptance of and openness about their disability were also included.

The interview was semi-structured, and some questions could be answered by choosing an alternative, which was described verbally and assigned a numerical value. All the interviews were performed by the author and were recorded, which made rechecks possible. All answers were written down afterwards, categorized and assigned numerical values where applicable. Two-tailed non-parametric Spearman's correlations were computed using SPSS (Statistical Package for the Social Sciences). Correlations (r) around 0.30 were considered of medium size and correlations around 0.50 as large, in accordance with general practice in the behavioural sciences (Cohen, 1988). The significance level for the correlations and t -tests below was set to $p \leq 0.05$.

Results

Well-being and success in school

- 'How do/did you feel in school on the whole, in terms of well-being? In elementary, middle, secondary and upper secondary school?'
Possible answers: 'very bad', 'bad', 'not so good', 'good', 'very good'.
- 'How do you feel you succeeded in elementary, middle, secondary and upper secondary school?'
Possible answers: 'very poorly', 'poorly', 'not so well', 'well', 'very well'.

On the whole, the feeling of well-being had been low in elementary school (ages 7–10). Even more subjects felt uncomfortable in middle school (ages 11–13). After that, the older they got, the better they felt in school. In secondary school (ages 14–16), the majority felt 'good' or 'very good', and in upper secondary school (ages 17–19) over 70 percent rated their satisfaction levels as 'good' or 'very good' (See Figure 1). Remarks, with reference to elementary and middle school, such as 'I knew that something was wrong with me but I didn't understand what it was then' or 'I felt I was the most stupid child in the class', were common.

The picture was even clearer concerning school achievements. A majority of subjects thought they had done poorly in elementary and middle school and none stated they had done 'very well'. The subjects felt they succeeded better with increasing age. In secondary school, there was an equal number of individuals with 'good' as with 'poor' achievement and in upper secondary school the majority felt they succeeded or had succeeded 'well' or 'very well' (See Figure 2). 'I just

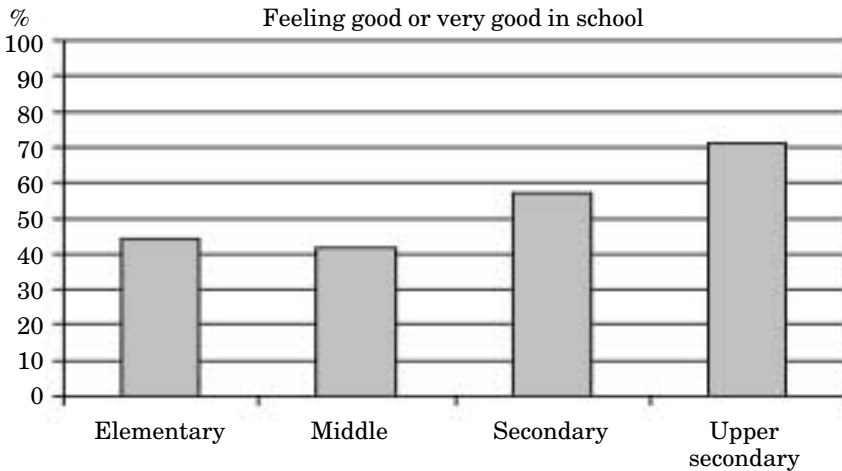


Figure 1 *Feelings of well-being in school*

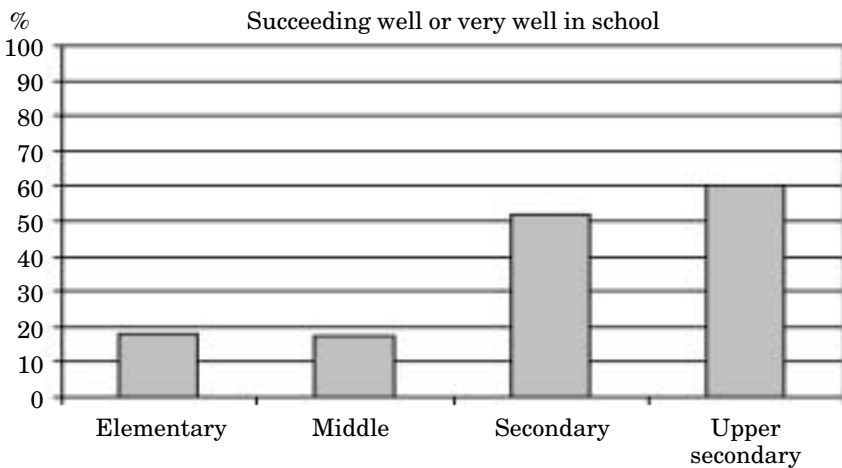


Figure 2 *Experiences of achievements at school*

loved school because I could do the things I was best at', said a young woman who had chosen a florist programme in upper secondary school.

The reliability of the subjects' statements of achievements was controlled through comparison with 9th grade reports, and the correlation was high and significant ($r = 0.59, p \leq 0.001$), i.e. those who felt they had succeeded 'well' or 'very well' had, with one exception, passed all subjects.

In conclusion, there are strong indications in this sample that the negative effects of reading and writing difficulties, in terms of feelings of distress and low achievement, were more profound in the first six years of schooling (ages 7–13).

Self-esteem and belief in the future

- ‘To which degree have your reading and writing difficulties influenced your self-esteem in a negative way?’
Possible answers: ‘not much at all’, ‘a little’, ‘some’, ‘quite a lot’, ‘very much’.
- ‘Do you feel different because of your dyslexic problems?’
Possible answers: ‘not much at all’, ‘a little’, ‘some’, ‘quite a lot’, ‘very much’.
- ‘How do you look upon the future?’
Possible answers: ‘hopeless’, ‘negatively, I worry’, ‘it will probably work out OK’, ‘positively’, ‘very positively’.

Of the 75 subjects in this study, 40 percent felt that the dyslexia had influenced their self-esteem negatively ‘quite a lot’ or ‘very much’. ‘It was because I felt inferior to the others’ was a frequent comment to this question. There was also a significant correlation ($r = -0.24$, $p \leq 0.05$) between impact on self-esteem and belief in the future, i.e. the more negative impact, the less optimistic their view of the future. However, many of the subjects said spontaneously that their self-esteem had improved when they grew older. ‘I felt very different from others when I was younger, but not any more’.

There was a high and significant difference (t -test, $p \leq 0.001$) with respect to belief in the future, between the subjects who were still in some sort of education, and the subjects who had left school. The group, who had left school, including the unemployed individuals, held a more optimistic belief in the future than those who were still in school or college. The subjects who were permanently employed were the most optimistic (t -test, $p \leq 0.005$) compared to the others who had left school. Several of them regarded school as an extended torment and they asserted that they were much better off after having left school, than they could ever have imagined.

Dyslexia’s impact on choice of curriculum and occupation

- ‘Which programme have you chosen in upper secondary school?
Your first choice? Were you admitted?’.
- ‘What is your occupation today?
If employed, is it permanent or temporary?’.

Most of the students had chosen a vocational programme in upper

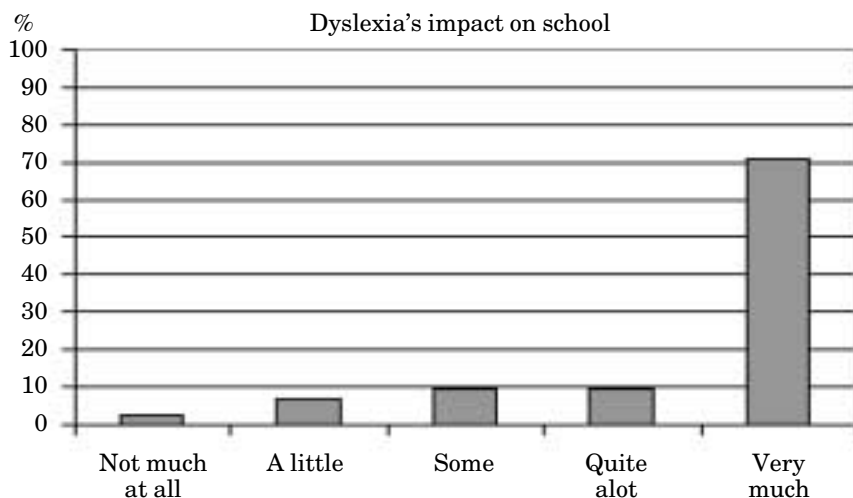


Figure 3 *Dyslexia's impact on school and school achievements*

secondary school, or some special programme with a curriculum of a certain sport combined with other subjects, such as 'football school'. One young man said: 'It's perfect; I love my sport and have so many friends now with the same interest'. Only 13 percent had chosen a set of purely theoretical courses. All the employed subjects had blue-collar jobs such as lorry driver, shop assistant, carpenter or stockroom worker.

Dyslexia's general impact on school and school achievement, and on current life situation

- 'To which degree have your reading and writing difficulties influenced school and school achievements?'.
Possible answers: 'not much at all', 'a little', 'some', 'quite a lot', 'very much'.
- 'How much do you feel the dyslexia influences your every-day life at the present?'.
Possible answers: 'Influences only reading and writing', 'a little', 'some', 'quite a lot', 'overshadows everything'.

A great majority (80 percent) felt that their dyslexia had influenced school and school achievement 'quite a lot' or 'very much' (See Figure 3).

Regarding the impact of the dyslexia on their present life situation, all subjects had problems with at least spelling and slow reading. However, two-thirds of the interviewees felt that their difficulties did not

affect them other than in reading and writing activities any more. 'Reading takes much longer time for me, but otherwise I don't think about it'. One of the students in upper secondary school said: 'I read much slower than my classmates, but it does not matter so much, because I understand and remember much better than most of them'.

The subjects who still were in some kind of education felt more affected than the subjects who had finished school, but the difference was not significant.

However, even the subjects who worked and expressed an improved self-esteem often felt uncertain or embarrassed when confronted with demands involving reading or writing. 'Oh, I never think about it nowadays, but if I have to fill in a form or something like that, I must ask my girl-friend for help and that isn't fun at all ...'. One young woman in college felt that her difficulties affected her economy; she was not able to have part-time employment like many of the other students in her class, because studying was much more time-consuming for her.

In conclusion, the dyslexic difficulties had a profound impact on school and school achievements. Several years after diagnosis, however, for a majority of the subjects, the influence of the dyslexia on everyday life was limited to reading and writing activities.

Peer relations

- 'To which degree have your reading and writing difficulties influenced peer relations in a negative way?'
Possible answers: 'not much at all', 'a little', 'some', 'quite a lot', 'very much'.
- 'Have you been bullied because of your reading and writing difficulties?'

A majority of the subjects felt that the dyslexic problems had not had any negative effect on their peer relations. Most subjects said that thanks to having good friends, school had been fun in many respects. Recurrent remarks were; 'The best moments in school were the breaks' and 'the only thing I enjoyed was playing with my classmates'. Only 17 percent felt that their reading and writing problems had influenced their peer relations negatively 'quite a lot' or 'very much'.

Almost a third claimed, however, that they had been teased or bullied because of their reading and writing difficulties, as compared to 10 percent in the general school population (Olweus, 1998). There was a close relationship between experiences of being bullied and feelings that the dyslexia had involved a very negative impact on self-esteem ($r = 0.48, p \leq 0.001$) and on peer relations ($r = 0.56, p \leq 0.001$). There was also a negative relationship ($r = -0.41, p \leq 0.01$) between feelings of well-being and damage to peer relations, meaning that the more

subjects felt that the dyslexia had damaged their peer relations, the lower was the feeling of well-being in the first nine years of school.

In conclusion, most subjects had not experienced bad peer relations because of their dyslexic problems, but there was a small group with bad experiences, who had been bullied and did not feel good about school. They blamed their dyslexia, and thought that the dyslexia had had a negative effect on their self-esteem.

The diagnosis

- 'Do you remember when they told you that you had dyslexia?'
Possible answers: 'yes', 'no'.
- 'If you remember, what did you think or feel then?'
Possible answers: 'painful', 'embarrassed', 'nothing special', 'relief, acknowledged'.
- 'Do you usually tell people about your reading and writing difficulties?'
Possible answers: 'never', 'to people I know well', 'most of the time'.

Quite a few subjects (29/75) answered that they did not remember the occasion when they were given a diagnosis of dyslexia. Of those 46 who did remember, there were several (19) who said that they had not understood what it meant and that they had not reacted in any special way or much at all. Fourteen had felt terrible and thought it was painful and embarrassing, and 13 had felt relieved because they did not think they were stupid any longer.

The younger the subjects were, the less inclined were they to tell others about their difficulties ($r = 0.25$, $p \leq 0.05$), indicating that the younger students were more embarrassed by their dyslexic difficulties.

Discussion

A majority of the teenagers and young adults in this study had experienced the first six years of school with feelings of being different, inferior and stupid. The uncertainty that many of them had felt, was in some cases aggravated by the attitudes of others, which resulted in poor relations and in quite a few cases, compared to children in general, teasing and bullying. A small group with bad experiences, having been bullied and uncomfortable at school, blamed their dyslexia. These young people felt that their dyslexia had affected their self-esteem negatively.

On the other hand, most of the subjects did not experience that their difficulties influenced their relations and friendships; it rather seemed as if good peer relations compensated for their difficulties. Westling-Allodi (2000) suggests that one way to deal with difficulties at school is

to 'turn on' peer relations, i.e. actively choose to invest in relationships rather than scholastic achievements.

However, subjects' self-esteem suffered from their dyslexic problems, and many had felt different and inferior to others.

From a developmental point of view, children's self-esteem appears very vulnerable to feelings of being different. In the period between ages 7–11, children's self-esteem generally drops in comparison to the rather self confident pre-schoolers (Berk, 2003; Wigfield et al., 1997). During this period children have started to evaluate themselves 'through the eyes of others', and are very sensitive to being different. If then, they feel that they are less competent than others, especially in such important areas as reading and writing during the first years at school, there is a risk of a considerable drop in self-esteem. Thomson and Hartley (1980) found that dyslexic children at this age associate being a good reader with being happy, and Humphrey and Mullins (2002) reported that children with dyslexia, in contrast to a control group, believed that when one is good at reading, one can be considered intelligent, and vice-versa. In a qualitative study by McNulty (2003), each dyslexic participant, by early to middle school, encountered unexplained difficulties and failures that called into question their sense of intelligence and motivation. Others often misunderstood their problems. These experiences resulted in the child feeling as if 'something's wrong with me'.

Thus, combining an age-related emotional sensitivity together with the child's bewildering feeling that something is very wrong, it is no wonder that the self-esteem is low in children who fail to learn to read and write during their first years of school.

Many of the subjects felt much better and more successful in secondary school, in contrast to Bender's and Wall's (1994) survey of studies outside Scandinavia, which demonstrated that social and emotional development may be seriously hampered with increasing age.

One of the reasons for an improved adaptation with age in the present study might be to do with the identification and gradual acknowledgement of the dyslexic difficulties. The mean age for diagnosis was 12 years, and the diagnosis, as in the study by Zetterqvist-Nelson (2003), seemed to have evoked a variety of reactions at the time. However, before diagnosis, the children did not know what was wrong with them, and thus might have been very sensitive to feeling inferior in school attainments. Dyslexic children remain puzzled as to why they cannot read unless they have had the difficulties explained to them (Palombo, 2001). Several of the young men and women said they had suspected that they were not as 'smart' as their classmates. After diagnosis, even if being diagnosed as dyslexic had been painful or confusing, most of the subjects were likely to have received more help

and understanding. They might gradually also have realized that their reading and writing difficulties were something specific, and not part of their identity. Since their emotional adjustment improved with age, it might indicate that the identification of their difficulties turned out to be positive in the long run. It was the younger subjects in the study who were most secretive about their difficulties.

Most probably, it is not the diagnosis in itself that is important, but the children's identification and gradual acknowledgement of their difficulties, i.e. that they realize they are normal in every other aspect, but have a specific difficulty with reading and writing. Compartmentalization of a disability has been shown to be a positive adjustment factor (Petersson et al., 2006; Reiff et al., 1997).

Another feature in line with positive adaptation to most disabilities is that it involves understanding what the disability is, and what its consequences are, now and in the future (Cosden et al., 2002). Self-understanding in this context allows people to utilize their strengths and advocate for their needs (Spekman et al., 1992). Cosden et al. (2002) maintain that the availability of significant others with whom to discuss their disability is particularly important for the acceptance of the difficulties. In the present study, there were several subjects who stated that they had not understood what the diagnosis meant until later on. McNulty (2003) concluded that the self-esteem of the participants in his study improved after testing and diagnosis, when these were conducted in a relevant manner that led to adaptation.

Davenport (1991) found that those in her study that revealed a high acceptance of the diagnosis were more likely to receive help from adults, to attempt to master difficult material and to emphasize the value of social support.

Another reason for a better adjustment with age might be that most of the girls and boys had chosen a vocational programme in upper secondary school and experienced that they did themselves justice in a totally new way. Many of them felt good about themselves and successful for the first time at school. Those who chose not to continue studying after leaving school seemed to experience their difficulties as much less frustrating than those who continued in some kind of formal education. They were more optimistic, with regard to their future prospects. Many of the individuals, who were employed, now felt that school had been an extended torment, and they emphasized how much better off they were after having left school than they could ever have imagined. This finding matches that of Maughan (1995), who found that the best adjusted of the adults with dyslexia in his study were those who had made choices consistent with their assets and weaknesses.

It was obvious that the subjects' academic self-esteem specifically was low, considering that so few of them (13 percent) had chosen to go

to college in comparison to students in general (43 percent). This finding is supported by Zeleke's (2004) review of over 40 studies on academic self-esteem in students with learning disabilities. In the present study, most of the subjects chose not to study after leaving school, in spite of normal average intelligence and in many cases, mothers with an academic degree. One highly intelligent young man, working as a carpenter, said spontaneously that he would never consider any kind of further education, now that school finally was over. He had been very successful in upper secondary school, but had had to work extremely hard. The individuals who had chosen to go to college, though, were still reminded of their difficulties. They were more uncertain about their future prospects and felt that the dyslexia still had a great impact on their current life. This finding is supported by the study by Undheim (2003).

In summary, the first six years in school seem to be the worst for children with dyslexia, regarding well-being and self-esteem. To feel better when they grow older, they avoid scholastic subjects and choose occupations where they will not have to face up to the reading and writing difficulties, but rather choose subjects and occupations that are in line with their talents and capacities. The question is whether this distress that the dyslexic subjects experienced during the early years of school is inevitable. McNulty (2003) suggests that the emotional stories that he uncovered, indicated that negative emotions are never totally avoidable, but parental and professional support can reduce the frequency and intensity of the negative experiences.

There are a number of methodological limitations with the study, e.g. no information about the severity of dyslexia and the possible embellishment or exaggeration of problems in living with dyslexia. Also, the method's reliability, assigning numerical values to answers and calculating correlations on the values, may be questioned. A final uncertainty concerns how children in general without any learning difficulties feel about school and growing up, and if their experiences are very different from the studied group. In summary, the findings in this study are to be regarded as trends and meant to provoke further study, possibly through prospective studies of young children at risk of dyslexia compared to a group of normal controls.

Despite methodological weaknesses the overall picture turned out to be more positive than many other studies have suggested. Even if the subjects had experienced great discomfort during the first six years in school, aged 7–13, many of them showed a remarkable adjustment as they grew older and a majority felt that the influence of their dyslexic disorder was only limited to activities involving reading and writing. Although their academic self-esteem appeared low, the subjects who had left school were very optimistic, especially those who had

permanent employment. Moreover, most of the subjects had not experienced bad peer relations because of their dyslexic problems. Many of the young people in this study showed an impressive confidence and ability to cope and develop their own capacities and talents.

One implication of this study is the importance of early identification, for which there is also good scientific support (Hellendoorn and Ruijssenaars, 2000; Humphrey, 2002; Høien and Lundberg, 1999; Rogan and Hartman, 1990). If the student is allowed to fail or fall behind for a substantial period of time before they are identified as dyslexic, there is an obvious risk for possible secondary effects such as self-esteem drop. The mean age at diagnosis had been as high as 12 years in the studied group, and the self-esteem of many of the subjects had been affected in the early years of school.

It is quite possible to make a rather valid prediction early on of a child's risk of developing dyslexia. Høien and Lundberg (1999) have surveyed the research on the prediction of reading difficulties from phonological weaknesses in smaller children. Children at risk were those who showed phonological difficulties in kindergarten and had parents with reading problems and the predictive value was around 80 percent. With an early identification of children at risk, the diagnostic procedure can take place in the first or second year of schooling if the child exposes difficulties in learning to read and write.

There are two obvious advantages with early diagnosis, the first being that interventions have been shown to be more effective with younger children (Lundberg et al., 1988; Torgesen, 2001).

The second advantage is the possibility of preventing, or at least alleviating, the secondary effects of dyslexia, which were treated in this study.

One way to prevent or alleviate secondary problems is careful explanations of the diagnosis to the child primarily, but also to parents and teachers. It is vital that the child understands the meaning and consequences of the diagnosis in order to be able to gradually acknowledge and compartmentalize the disability. To receive a disability diagnosis can be the source of a psychological crisis and should be treated as such. In the present study there were many of the subjects who stated that they had not understood what dyslexia meant until long after diagnosis, something which most probably affected their self-image harmfully.

Furthermore, since it is likely that parental and professional support can reduce the frequency and intensity of the negative secondary effects, it is just as important that parents and teachers are well-informed about the diagnosis and what they can do to help. The growing literature on resilience factors might be of help (Fink, 2000; Goldberg et al., 2003; Hellendoorn and Ruijssenaars, 2000; Morrison

and Cosden, 1997; Reiff et al., 1997; Scott et al., 1992; Werner, 1993).

It is also recommended that special education training is carried out within the classroom in the early years of school so that dyslexic children, who seem to be very sensitive to being different in this age period, will not have to feel the embarrassment of having to leave the classroom for extra instruction. There were several of the subjects in the study who had refused special education early on because they did not want to stand out as someone who needed help.

Another implication is that students with dyslexia should be encouraged in areas such as sports, social activities or a special interest where they can do well and which makes them view themselves positively. Schools should also offer alternative educational programs suited to each student's aptitude, in order to give the dyslexic students a chance to feel successful in school and in subsequent employments.

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Gunnel Ingesson is a Clinical Psychologist. Gunnel has worked clinically for several years with dyslexic children and is now a Lecturer in the Department of Psychology, Lund University, Sweden. The title of her doctoral thesis was 'Growing up with Dyslexia: Cognitive and Psychosocial Impact, and Salutogenic Factors'. Her most recent publication is 'Stability of IQ Measures in Teenagers and Young Adults with Developmental Dyslexia', *Dyslexia* 12: 81–95. **Address:** Department of Psychology, Lund University, Box 213, SE-221 00, Lund, Sweden. Email: Gunnel.Ingesson@psychology.lu.se