Royal College
of Nursing
Practice Education Forum

A Review of the Literature into Dyslexia in Nursing Practice

FINAL REPORT

C Dale, F Aiken

January 2007

ACKNOWLEDGEMENTS

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1   INTRODUCTION

The RCN Practice Education Forum recognised in 2006 that this project would represent interests of nurses and nursing as research showed between 3% and 10% of the nursing population admit to having dyslexia (Sanderson-Mann 2005). The aim of the project is to develop a standard to ultimately improve patient care whilst supporting, developing and protecting nurses in practice with dyslexia. Members of the Forum will be involved in the production of standards.

The project addresses a key area that affects both pre and post registration students across all aspects of nurse education. The findings will be of clear benefit to Allied Health Professionals (AHP).

The aims of the project were to:
1) Undertake a literature review and analysis of available research relating to dyslexia in nursing practice and comparable professions e.g. medicine

2) Develop a standard of best practice on how reasonable adjustment can be achieved for nurses in practice

The search covered literature published between 2000 and 2006 inclusive. However, some unpublished data has also been included as there are some initiatives to address nurses and AHPs with dyslexia that are being or have been evaluated recently.

References are made to policy literature published by the Department for Education and Employment, Department of Education and Skills and the Department of Work and Pensions in order to provide the policy context for students in Higher Education and health professionals with dyslexia.

The report includes:

7. A note on definition

8. A description of the search strategy and results.

9. A description and analysis of the issues identified in the literature which includes adults with dyslexia or dyscalculia more generally, to provide a broader context and review of literature.

10. A description of national policy and guidelines, professional standards, guidelines for good practice in Higher Education and relevant legislative requirements to set the review in context.

11. Discussion of the employer's responsibilities to the dyslexic clinician

12. An overview of the possible clinical issues for the dyslexic student and professional.

13. Consideration of evidence-based interventions and assistance for the dyslexic clinician.

14. Discussion of the findings and recommendations

15. Case studies are given in the appendices in order to illustrate the variety of issues arising in the report.

2 DEFINITIONS

The definition of dyslexia adopted for the report is the definition in DfES's (2004) A Framework for Understanding Dyslexia:-

> *A specific difficulty, typically characterised by an unusual balance of skills. Dyslexia affects information processing (receiving, holding, retrieving and structuring information) and the speed of processing information. It therefore has an impact on skills such as reading, writing, using symbols and carrying out calculations.*

It is often referred to as a specific learning disability (SpLD) and is categorized usually as developmental rather than acquired.

The definition of dyscalculia which is related to dyslexia is:-

> *'A condition that affects the ability to acquire arithmetical skills. Dyscalculic learners may have difficulty understanding simple number concepts, lack an intuitive grasp of numbers and have problems learning number facts and procedures.*
>
> (*The National Numeracy Strategy: Guidance to Support Pupils with Dyslexia and Dyscalculia 2001*)

It is important to note that dyslexia affects people to varying degrees, meaning that individuals may be strong in some areas while weak in others. Some of the strengths include being intuitive, good at visualisation, being creative, good at seeing the whole picture, good at making links between things and seeing connections (The National Institute of Adult Continuing Education - England and Wales NAICE 2006).

Perceptions of dyslexia may vary: the traditional 'medical model' sees people as recipients of a service and their particular disability as being the problem. The 'social model' of disability sees the person as disabled by society and the impairment itself not being the problem but rather the environment that needs to be modified to support the person. The NMC and the DDA use the terminology that reflects the social model of disability (NMCb 2006).

3 SEARCH METHODS AND RESULTS

3.1 Search strategy and sources

There were two components to the search strategy. First, to provide a context and background to the main literature review, the Department of Health and Department for Education and Skills publications lists were searched for policy documents relating to ADULT DYSLEXIA.

Second, the searches for research and evaluation articles were focused on electronic databases, namely Medline, ASSIA and Cinahl. Professional and academic websites were searched as were professional interest groups. The RCN Library and the British Library were also accessed. Google Scholar was also searched.

The time frame for the search was from 2000 – 2006 as most relevant legislation has been passed within this period; also nursing is a profession which is constantly changing, therefore it is important that a literature review reflects the current climate.

The search strategy adopted to access databases was to apply the following search terms:

#1 Nurse
#2 Health care professional
#3 Doctor
#4 Healthcare students
#5 #1 OR #2 OR #3 OR #4
#6 Health personnel
#7 #5 OR #6
#8 Adult Dyslex*
#9 Adult Dyscalcul*
#10 Adult Learning Disability

#11 #8 OR #9 OR #10
#12 Workforce
#13 Employee
#14 Employment
#15 #12 OR #13 OR #14

The search was widened in order to consider the many issues for disabled health care professionals and clinical areas using the matrix illustrated below.

Dyslexia	Professionals	Education	Practice	Adults
Literacy and Numeracy	Nurses/ Allied health professionals/Medical	University students	Employment	Learning disability
Clinical issues	Record keeping/Care planning/Administration of drugs/Manual skills	Study/Exams	Safety	Forms
Understanding	Screening	Assessments	Clinical	Screening
Stigma	Clinical setting	Placements	Disability Discrimination Act	Discrimination

Table 1. Matrix of issues for literature review

3.2   Results

Hierarchy of evidence	AHP	Nurses	Students	Adults
Systematic reviews	0	0	0	2
RCTs	0	0	0	0
Cohort studies	0	0	0	0
Case control studies	0	1	1	3
Cross sectional surveys	1	1	2	1
Literature searches	2	1	1	0
Qualitative inquiry	0	1	9	2
Case reports	0	0	1	0
Expert opinion	1	0	0	5
Professional guidelines	3	1	0	1
Anecdotal	1	5	2	0

Table 2: Hierarchy of evidence

There are obvious gaps in the literature. As the NRDC report in the review of research on adult dyslexia (Rice M, Brooks G. 2004):

> *Good practice in this field rests almost entirely on professional judgement and common sense, rather than on evidence from evaluation studies.*

Other authors have also recognised the deficits in publication of research on clinicians with dyslexia and the issues for nurse education and, in particular, clinical practice (for example, Sanderson-Mann 2005, Millward 2005). Much of

the papers and text found were based on research on students in higher education. The methodologies were qualitative, for example surveys, or were case studies. References to most of the publications can be found on the Healthcare Professionals with Disability web site[1]. However, most of these references are from journals that are not peer reviewed. In the nursing press this lack of evidence of how dyslexic clinicians can be competent practitioners has at times led to anecdotal rhetoric (Wiles J. 2001, Watkinson S. 2002).

In national policy documents the NHS, as represented by NHS Careers, showed a general lack of sources of help relating to knowledge of dyslexia, dyscalculia or any learning disability (Morgan 2004). There does seem to be information about professionals with mental health problems but there is an obvious need for more work on other types of disability, specifically for different impairments such as dyslexia.

It is highly likely that there are health professionals who do not report disabilities particularly when impairments are hidden disabilities. Research into which types of disabilities are most or least likely to be reported, and the obstacles to declaration, would be helpful particularly as support cannot be offered when it is not recognised as a necessity.

Togerson C et al (2001) found in an national systematic review of adult literacy and numeracy interventions that out of a total of 46 trials only 36 contained data (9 RCTs and 27 controlled trials (CTs), and of those 36 trials only 18 (9 RCTs and 9 CTs) either reported effect sizes or insufficient data for the reviewers to determine effect sizes. This overview of all the experimental research in the fields of adult literacy and numeracy since 1980 revealed only 6 studies out of a total of 36 trials showing a statistically significant positive outcome for the intervention that could be used to inform policy or practice.

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[1] http://www.david-j-wright.staff.shef.ac.uk/HCP-disability/index.html

This lack of reliable and relevant evidence to inform policy and practice has meant that nurses with dyslexia, organisations and individuals that should be supporting them (for example, Occupational Health Departments), and the standards and regulatory bodies that maintain patient safety, are attempting to work in a vacuum.

4 ADULT DYSLEXIA

4.1 Being dyslexic

Adults with dyslexia often report being ridiculed and humiliated at school and frustration about the mistakes that they make in reading and spelling. Career aspirations for disabled young people are lower than for non-disabled young people (Burchardt 2005):

> *The relationship between disability, educational aspiration at 16 and qualifications at age 26 can be illustrated in more detail. For example, 68 per cent of non-disabled young people who aspired to higher education succeeded in gaining a degree-level qualification. This figure compares with 56 per cent of young people disabled at both ages who had similar aspirations*

In adulthood the dyslexic may express anxiety about disclosing their difficulties to friends and colleagues but often feel unhappy in their working lives. Many have gone to considerable lengths to hide their difficulties, but most feel more optimistic when they understand the reasons for their difficulties when they have been given impartial evidence of their strengths and of their ability to learn and are helped to develop strategies and skills to overcome the effects of their difficulties.

However, the dyslexic adult may not actually perceive themselves as disabled as Blankfield (2001) found. She discovered that, at a personal level, individuals with dyslexia did not consider themselves or were not seen as people with a disability; this differs from the legal and bureaucratic position of dyslexia where dyslexia is included as a disability in law, in employment legislation and procedures.

Dyslexic people often show creativity in finding answers to problems, often through the ability to look at situations from other perspectives. Many have particular strengths in visual-spatial tasks and many gain strength from their successes in overcoming their difficulties (Rack 2002). Understanding one's own strengths and weaknesses, i.e. self-awareness, is vital for the dyslexic: this is known as 'metacognition'. Authors such as Bell (2002) see this as the first step to 'conscious control' for an individual

Dyslexia has implications relating to work performance, accuracy and possible accident proneness. Some dyslexics have most difficulties with visual processing of information, some with auditory processing, and others with motor integration. Each of these can be severe or mild. Such symptoms are found inconsistently among individuals who are diagnosed as dyslexic. However, initial diagnosis may be missed in adults as compensation or coping strategies that the adult will learn may conceal literacy or numeracy weaknesses (Reid 2001). Dyslexia may overlap with related conditions such as dyspraxia, attention deficit disorder (with or without hyperactivity) and dysphasia (NIACE 2004).

Dyslexia should not be a barrier to employment, but there could be health and safety inferences. For example, some people with dyslexia are easily diverted and may find it difficult to concentrate on one task at a time. Others have difficulty concurrently processing auditory and visual information (Harriss 2005).

The diagnosis of dyslexia has at times been controversial (Dispatches 2005) with disputes about the existence of this disability. However, as NAICE (2005) pointed out:

> Our understanding of dyslexia may be incomplete but we cannot decide that something doesn't exist, just because we don't understand it yet. It is a useful term, both for dyslexic people and for those working with them. The process of diagnosis, rather than

> *being "a waste of public money" enables dyslexic adults to understand their strengths and weaknesses, and enables support and teaching to be focussed appropriately.*

4.2   Incidence

In the national disabled student population the incidence of dyslexia is reported to be 41.3% which is the most common disability (Hartley 2006). Pharmacy students who reported to be dyslexic made up 21% of the disabled group and were less than 1% of the total student population (Hartley 2006).

In the general population estimates of prevalence vary, from 2% to 15% of the population. This is because different studies identify cases based on different cut-off points on the continuum between mild and severe dyslexia (Dalton 2004). In between 4% and 10% of the workforce is dyslexic (2005) according to NIACE However many people with dyslexia may not be aware of it, leading to loss of confidence, low self-esteem, frustration and anxiety.

In the nursing population there are no definitive figures. Illingworth (2005) found that 1 in 20 nursing cadets in one Trust were dyslexic. Sanderson-Mann (2005) found that between 3% and 10% nurses were dyslexic. In a study for the DRC Hirst (2004) found that 11% of working age disabled people had public sector jobs, compared with 18% of non-disabled people. In the public sector, disabled employees were less likely than non-disabled employees to occupy the more senior levels in professions such as nursing. The study showed that 44% of disabled people employed in the public sector are working at more senior levels, compared with 54% of non-disabled people.

4.3 Screening tests

Self-assessment tests may be used initially, for example the Adult Dyslexia Checklist (The British Dyslexia Association 2006)[2]. There are many computer screening tests today but there is much variation between the computer-based screening packages in the approach used and the time commitment required. They also vary greatly in the skills they test and the results they present (James 2004). However, the most comprehensive of all assessments is with an independent educational psychologist. With adult dyslexics particularly, because they have learnt compensation strategies over the years so that their weakness are masked in testing, the diagnostic interview from a sensitive, experienced and trained assessor is crucial. In a formal assessment, a holistic approach is to be recommended. This should include taking a full history, tasks to assess if the person knows which speech sounds are represented by which written letters, assessing short-term memory, analysing reading, spelling and writing, and interviewing the individual in depth (Morgan 2000 p.39).

4.4 Discrimination

There are two forms of discrimination: direct and indirect discrimination which are stated in the Employment Equality Direction (EU 2006): direct discrimination occurs when a person is treated less favourably than another in a comparable situation because of their racial or ethnic origin, religion or belief, disability, age or sexual orientation, for example, a job advertisement which says 'no disabled people need apply. However, discrimination often takes more subtle forms such as indirect discrimination. This occurs when an apparently unbiased practice would disadvantage people on the grounds of racial or ethnic origin, religion or belief, disability age or sexual orientation, for example an employer gives a

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[2] http://www.bdadyslexia.org.uk/adultchecklist.html

requirement for all people who apply for a certain job to sit a test in a particular language even though that language is not necessary for the job.

In one US study (Harris 2001) it was found that among the employed people with disabilities, 36% state that they have encountered some form of discrimination in the workplace. Just over half (51%) of those who have experienced discrimination say that they have been refused jobs for which they are qualified In nursing, there is also evidence of discrimination; for example Illingworth (2005) found that nurses she studied were –

> *Acutely aware of the negative attitude of other people towards those with dyslexia. This may have implications for self-image and cause undue stress through negative emotional responses*

4.5   Stress

Morgan (2000 p.65) postulates that being an adult includes complex roles, each of which may include several responsibilities; these demands could increase stress for the dyslexic person. The dyslexic healthcare professional, even if borderline or compensated, may well experience difficulties due to working in a stressful occupation. Stress in university, placements or employment can therefore hinder the dyslexic who may already be disadvantaged.

The physical response to stress by adult dyslexics will occur in any circumstances which they know has previously caused problems for them. Working memory problems mean that an apparently straightforward everyday duty such as taking down the details of a newly admitted patient will be highly stressful and so activate a physical response (Bell 2002)   Carroll (2006) found that dyslexic students in higher education showed anxiety levels that were well above those shown by students without learning difficulties.

4.6 Adult dyscalculia

Symptoms of dyscalculia include difficulties with ideas of number size, which make it problematic to estimate and compare numbers, or navigate up and down a scale, or count in twos and threes. Dyscalculics may have problems with translating between number words and numerals and lack an understanding of the place value system. They may find it extremely difficult to memorise number facts, but also be unable to deduce one fact from another because of their lack of understanding of the number system. Measurement, especially proportions, can be difficult, as can spatial relationships. They may have great difficulty in understanding word problems and deciding which operation is required (Coben 2003)

However, dyscalculia is not a well-defined syndrome. Some researchers have found the prevalence of developmental dyscalculia to be between 3% and 6% of the population, which is at a similar level to that of developmental dyslexia and attention deficit hyperactivity disorder (Coben 2003)

Further research is needed in both defining and diagnosing dyscalculia. Review of research and related literature regarding adult numeracy will be particularly difficult because many adults have bad relationships with mathematics, ranging from mild anxiety to total avoidance; diagnosing dyscalculia in adult learners therefore presents particular challenges (NIACE 2004).

4.7 In higher education

Student nurses with learning disabilities may experience anxiety and social isolation. However, their intelligence functioning is average or above average (Kolanko 2003). There is some evidence to show that, although the disabled were students were more likely to be registered for and obtain an undergraduate

degree than any other qualification, the classification of their degrees was lower than those obtained by non-disabled students (Riddell 2002). This may be in part because of self-reported difficulties by students with dyslexia, with a wide range of skills and academic tasks, mainly taking notes, organisation of essays and communication of ideas in writing (Mortimore 2006).

Price (2004) found that there was some evidence of apparent disability discrimination for nursing students in higher education, usually resulting from ignorance by nursing mentors who knew little or nothing about dyslexia.

4.8   Career options

The adult dyslexic has pattern of strengths and weaknesses that may predispose them adopting certain occupations and away from others. The Disability Rights Commission's statistics (DRC 2006) show that disabled people in employment are more likely to work in manual and lower occupations, and less likely to work in managerial, professional and high-skilled occupations. If they are in the professions dyslexic adults are less likely than non-dyslexics to be involved in professions such as science, computing, management and finance. (Taylor 2003). They were more likely to be involved in people-oriented professions such as nursing or sales. These results suggest that people with dyslexia may indeed show significant patterns of occupation choice.

Those giving advice on career choices in school and college may be ill-informed about dyslexia and its consequences for career choices (Morgan 2000 p.101) so that they are advised to take jobs based on their present literacy skills rather than the potential they could achieve with support. They then may become demoralised underachievers.

One of the obstacles to disabled people entering nursing may be the lack of a targeted recruitment drive. Tynan (2004) noted that:

> *The rolling National Recruitment Campaign is part of a wider programme to enable the NHS to recruit and retain the staff it needs. A key aim of the campaign is to attract recruits from a wider cross-section of the community, encouraging more diversity in age, gender, ethnicity and social background so that the NHS workforce and individual healthcare professions begin to reflect the communities they serve. There must surely be a case for a campaign targeted specifically at the disabled community. If the healthcare professions have shown a reluctance up till now to accept disabled colleagues, this needs to be addressed.*

The NHS and education sector encourages applications from people with a wide range of academic and vocational qualifications[3] from diverse backgrounds and abilities through Access courses to Higher Education. In 2003-2004 students with learning difficulties on Access courses made up 2% of the total numbers at registration (Dentith 2004). However, there are no available statistics on success rate of students with learning difficulties going on to nursing programmes at HEIs.

In Australia, Ryan (2004) found that attitudinal barriers persist that effectively hinder the full participation of people with disabilities in nurse education programmes. However, Wright (2003) suggests that nnurses with disabilities bring personal insight into what it is like to be ill, hospitalized and disabled, and can offer particular skills.

The dyslexic nursing student may decide to choose placements that are less stressful and more people orientated. Morris and Turnbull (2006) found in their study that dyslexic student nurses achieved more job satisfaction in clinical placements that were less acute and concluded that career choices might be shaped by these factors. Illingworth (2005) found that dyslexia had affected the

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[3] http://www.nhscareers.nhs.uk/nhs-knowledge_base/data/217.html

career choice of the dyslexic nurses she studied and what had happened in their career. One participant believed that promotion had been hindered because of a delay in obtaining a degree.

Disabled people generally have been found to be under-represented as employees in the public sector (Hurtsfield 2004):

> *There was a general consensus that disabled people were under-represented in the occupations or professions in the various sectors their organisations represented. However, the majority of organisations did not collect evidence on the representation of disabled people being awarded qualifications, or employed in their sector.*

A reason for this may be the perception of healthcare staff themselves that a learning disability, like dyslexia, is a medical disease that makes the disabled person unfit for practice rather than being fully functioning people with potential to be nurses or allied health professionals. This patronising and discriminating attitude certainly prevailed before the equal opportunities agenda and the Disability Discrimination Act (DDA) which has forced organisations to consider their duties to disabled employees (Sin 2006). In fact, it was the Disability Rights Commission's (DRC) concerns about possible discriminatory acts which could reside in the content of regulatory framework such as that of the NMC, as well as how it is interpreted and executed in daily practice, which drove them to formally investigate fitness standards in social work, nursing and the teaching professions (Sin 2006).

5 POLICY AND GUIDELINES

5.1 National guidelines and strategy

The Department of Education and Employment's Skills for Life strategy calls for help for the seven million people who have poor literacy and numeracy skills by improving the skills of those groups where these needs are greatest and where the most impact can be made (DfES 2001). The strategy includes raising standards of teaching, engaging potential learners and coordinating planning and delivery.

If the adult dyslexic is looking for help and information the NHS Direct advise:

> For adults with dyslexia, being diagnosed can be a great relief as they realise their difficulties are not due to being unintelligent. Much can be done to improve learning skills and reading and writing skills; local colleges offer basic skills courses – it is never too late to learn.

> People with specific learning difficulties may be eligible to be registered disabled and get help with the costs associated with assisted learning. This may be useful if you experience discrimination from an employer or prospective employer.

5.2 Professional standards

There are currently many debates about whether healthcare professionals have to set and maintain higher levels of competence for the job than other professions. To set these issues in context it is necessary to review the

standards as laid out currently by the regulatory bodies and what they say about disabilities such as dyslexia.

The Nursing and Midwifery Council's (NMC 2006b) standards of proficiency for pre-registration nursing education state -

> *Evidence of literacy and numeracy may be deduced from academic or vocational qualifications, through evidence to meet key skills abilities, or through the approved educational institutions' own processes, which may include portfolios or tests for those without formal qualifications.*

The NMC goes on to stipulate that –

> *Students who declare on application that they have a disability should submit a formal assessment of their condition and specific needs, from a GP or other medical or recognised authority, to the relevant Occupational Health department. The programme providers should apply local policy in accordance with the Disability Discrimination Act 1995, for the selection and recruitment of students/ employees with disabilities. Where appropriate, the institution's student support services should also be involved. The NMC would require evidence of how such students would be supported in both academic and practice environments to ensure safe and effective practice sufficient for future registration.*

For all post-registered nurses the NMC states:

> *The NMC requires assurance that those who enter and stay on its register are capable of safe and effective practice. Health conditions, disabilities and convictions and cautions are not automatically incompatible with registration and the NMC would expect that each person be assessed on an individual basis*

The British Medical Association's (BMA) best practice for medical students state –

If you are diagnosed with dyslexia, disclosing it as a disability should not stand against you. Under part 4 of the Disability Discrimination Act, higher educational institutions must ensure that students with disabilities should not be treated less favourably. Universities are obliged to provide reasonable adjustments to the course enable students with disabilities to progress on the course. If you are diagnosed at university it is important that you inform your medical school at the earliest possible opportunity…. The full diagnostic evidence for dyslexia will be considered by the university's occupational health physician, to assess whether the student meets the fitness to practice criteria set out by the Medical Act 1983. If passed the candidate will be granted extra time at interview. The interview is not intended to evaluate the applicant's disability but is used to assess academic and personal qualities.

The Royal Pharmaceutical Society states that it is the supervising employer rather than the Society who can give support to the dyslexic student. Additional time can be given in exams and they can bring in aids if they notify the board ion advance. The Local Education Authority is expected to give them support rather than the Society.

The Health Professionals Council expects the practitioner to regulate themselves:

Every health professional on our register has a personal responsibility to maintain and manage their own fitness to practise, and to make decisions about whether they are fit to practise their profession.

The concerns and issues that arise for nurses with dyslexia in clinical practice will be discussed later in 6.3

5.3   Legislative requirements

The relevant national guidance which stakeholders need to be cognisant of is the Disability Discrimination Act (DDA) 1995. This Act made it unlawful to discriminate against people with disabilities:

• In employment

• In relation to rights of access to goods, facilities, services and premises.

If unlawful discrimination occurs in the workplace, a person with a disability can claim compensation through an Employment Tribunal. It is unlawful for employers to discriminate against employees with disabilities in the sense of treating them less favourably than they treat or would treat non disabled employees. Employers are under an obligation to carry out reasonable adjustments to accommodate disability.

The Disability Discrimination Act 1995 (DDA) has been amended by the DDA 2005. Most of the changes will come into effect in December 2006. These include ensuring that discrimination law covers all the activities of the public sector and requiring public bodies to promote equality of opportunity for disabled people.

The government body that will be responsible for promoting anti-discrimination will be the UK Commission for Equality and Human Rights (CEHR) which will bring together the resources to promote equality and tackle discrimination in relation to gender, gender reassignment, disability, sexual orientation, religion or belief, age and human rights from October 2007, and will include race by April 2009. The CEHR which comes into being in October 2007 is established under the Equality Act 2006 and will combine the work of the Commission for Racial

Equality (CRE), the Disability Rights Commission (DRC) and the Equal Opportunities Commission (EOC).

The Equalities Review[4] has been established by the Government in 2005 to carry out an investigation into the causes of persistent discrimination and inequality in British society. Working in parallel to the Equalities Review, the Department of Trade and Industry will begin new work informed by the Equalities Review on the development of a legal framework. The Discrimination Law Review will assess how anti-discrimination legislation can be modernised to fit the needs of Britain in the 21st Century

European legislation, the Employment Equality Directive 2000/78/EC, emphasises the fundamental importance of non-discrimination and gave the European Union powers to take action against discrimination on a range of grounds. The directive implements the principle of equal treatment in employment and training irrespective of religion or belief, disability, sexual orientation and age and requires employers to make reasonable accommodation to cater for the needs of a person with a disability who is qualified to do the job in question. It also allows for limited exceptions to the principle of equal treatment for example to preserve the ethos of religious organisations.

5.4   Higher Education

The 2001 Special Educational Needs and Disability Act (SENDA) was brought in as an amendment to the 1995 DDA. From 2002, the Act made it an offence for educational institutions to discriminate against a disabled person by treating him or her less favourably than others for a reason relating to their disability. The Act covers all aspects of student services including e-learning, distance learning, examinations and assessments and learning resources

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[4] http://www.theequalitiesreview.org.uk/background.aspx

The Department of Education and Skills (DfES 2002) state that all Higher Education Institute's (HEI) including those that have a placement element to their courses, such as occupational therapy and nursing, have to develop polices and procedures that provide support, where appropriate, to students with dyslexia. SENDA (2001, part IV) judges that negative attitudes would constitute a form of discrimination; and as such a dyslexic student nurse suffering this discrimination would be within their rights to take legal action.

SENDA (2001) part IV places a duty upon HEIs to work in partnership with mentors and placement providers and to offer a student centred, positive learning experience, for all dyslexic student nurses in clinical practice (Steiner 2004)

6. ISSUES IN CLINICAL PRACTICE

6.1 Diagnosis

A dyslexia diagnosis continues to carry a stigma that may result in the nurse's non-disclosure, with implications for the level of support available to that person. Illingworth (2005) found that receiving a diagnosis of dyslexia helped most her study's participants by accounting for the difficulties they had experienced. However, it is usually the case that 'a problem' is discovered when something has gone wrong with serious consequences (Rack 2002). It is important to raise awareness of the effects of dyslexia in adults and to take steps to provide appropriate support before severe problems occur.

6.2 Disclosure

The DRC's study of professional standards, such as the NMC's, stated that:

> *A concern arising from evidence in all the occupations examined is disabled people's reluctance to disclose their impairment or long-term health condition... There are a range of concerns expressed by disabled people around the real and perceived discriminations against them as a result of disclosure. The implications of non-disclosure, however, are that support may not be rendered or that discrimination cannot be tackled effectively. Interventions may therefore not be timely.*

The dyslexic nurse has a right to the information about their disability being kept confidential. In addition, disability information is considered as 'personal sensitive' information under the Data Protection Act (Information Commissioner 1998) so cannot be passed on to others without permission so the newly diagnosed nurse can request that this information is not passed on. Even if it is

requested that nobody else knows about the disability, employers and education providers still have a duty to make reasonable adjustments. However, it may be that the most appropriate adjustment cannot be made because of the issue of confidentiality. For example, the student may prefer to record a lecture rather than have a note-taker in the lecture with them as they do not want other people asking why they have a note-taker.

Disabled students should disclose their disability to providers of clinical placements as well as to education providers. However, some participants in Morris's study (2006) contended with discrimination and ridicule, often choosing not to disclose their disability. In her study of students' decisions to disclose dyslexia on work placements, Blankfield (2001) suggests 'system advocates' in the university such as disability support workers. The system advocate is an individual at the institution who can negotiate on behalf of the student. Normally, this role would usually be taken by the HEI's disability support worker. However, when the student is on placement they become almost an employee of the organisation and this system advocate may be lost.

The issue for newly employed staff may be the other staff's lack of knowledge and preconceived ideas that dyslexic people are 'stupid'. Illingworth (2005) found that one difficulty for nurses was telling colleagues about their dyslexia as they saw the lack of understanding about dyslexia among some colleagues and were therefore concerned about being misjudged. Some told colleagues, but others were selective in whom they informed and they did not always tell people immediately.

After registration, the law does not require employing Trust to ask individuals if they have a disability or need reasonable accommodation. The issue of disclosure therefore remains a decision which the individual must make after carefully weighing up all factors (Morgan 2000 p.117).

6.3   Fitness to practice

What will be the central concern of many healthcare professionals, the professional bodies that regulate the professions, and the public, is the registered nurse or healthcare professional's competence to practice. The concept of fitness practice at this time is contentious for all healthcare professionals following the Shipman Inquiry (relevant reviews of regulations are tabled in Table 3 below).

Hirst M et al 2004	*The Employment of Disabled People in the Public Sector: A Review of Data and Literature*	Disability Rights Commission	
MORI 2005	*Regulators study*	General Medical Council	
Sin et al 2006	*Background to the Disability Rights Commission's Formal Investigation into Fitness Standards in Social Work, Nursing and Teaching Professions.*	Disability Rights Commission	http://www.drc-gb.org/docs/FitnessStandardsBackgroundPaper.doc
Health Professionals Council 2006	*Managing fitness to practise: a guide for registrants and employers.*	HPC	http://www.hpc-uk.org/assets/documents/10001344Managingfitnesstopractise.pdf
Department of Health 2006	*The regulation of the non-medical healthcare professions.*	DoH	
NMC 2006	*Annexe 3 to NMC guidance - good health and good character.* Appendix 1	Nursing and Midwifery Council	www.nmc-org.uk
NMC 2006	*Healthcare Professional Regulation: public consultation on proposals for change.*	Nursing and Midwifery Council	http://www.nmc-uk.org/aFrameDisplay.aspx?DocumentID=2258

Table 3: Fitness for purpose: relevant guidance and reviews

The NMC have had registrants referred who have been identified as being affected by dyslexia (there is one case of an interim order[5] on a staff nurse with dyslexia on their website). However, the identification of a particular condition does not, of itself, lead to a conclusion of impaired fitness to practise (NMC 2006b). In general terms, allegations brought to the NMC centre around issues such as poor record keeping, inadequacy of care plans, difficulties with drug administration, poor provision of care, inability to cope either in stressful environments or when asked to multi-task. The registrant's dyslexia, if relevant, may be considered to be contributory factors to these matters. However, it is the actual allegation that the fitness to practise panel will consider and it will need evidence that the registrant is not capable of safe, competent, effective and independent practice.

The General Medical Council commissioned a study of regulation of healthcare professionals (MORI 2005); the researchers found that for most health and social care regulators such as the General Social Care Council (GSCC), checks on fitness to practise occurred at the end of training on application for registration, with little scope for supervision before that, other than by using informal processes. They also found that –

> *Regulators agree that clear criteria must be established upon which decisions relating to fitness to practise are made. It is also essential that regulators keep effective record of the procedures and processes which need to be employed to reach decisions. This is currently not happening and regulators employ variable methods to log enquiries or incidents.*

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[5] Imposed for 18 months whilst the substantive matter is being investigated by the Investigating Committee. Reviewed after six months, then every three months until completion of the 18 month Order. NMC then must apply to the High Court for continuation

Morris and Turnbull (2006) found that in nursing the exact explanation of fitness for purpose "*has been devolved to the local level"* and there is as yet no *"definitive statement on support for dyslexic nurses in practice".* Isolated cases of poor practice make the nursing press (for example, Duffin 2001) but, unless there was statistical confirmation of all dyslexic nurses not being fit to practice, the individual continues to be appraised as competent by their Trust or employer.

Nevertheless, the lack of national standards may lead to confusion over what is required in assessing new registrants and applicants for employment as being fit for practice. The Disability Rights Commission called for explicit guidance to minimise the need for local management strategies (Sin 2006) which leads to inconsistency in screening, support and anti-discriminatory practice in organisations.

In the above DRC report the researchers found the number of agencies involved in regulation of healthcare professionals, including employers, qualification bodies, educational institutions and others made it very difficult for cases to be dealt with on an individual basis. The complexity of the legal and regulatory frameworks[6] and their operation in practice also meant it was difficult for disability discrimination to be tackled through individual cases.

The Health Professionals Council believes that –

> *A registrant is judged to have insight and understanding of their fitness to practise if they have a realistic, informed idea of the limits of their safe practice, and they understand the need to remain within their scope of practice, to make sure that their patients, clients and users are not put at risk and that there is not any danger to themselves.* (HCP 2006)

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[6] The DDA, professional regulations, health and safety legislation

The NMC's definition of good health and good character is of being someone who is capable of safe and effective practice. This may be interpreted in a number of ways according to one's own knowledge and experience of health and character. However, under the social model of disability, it is unlikely the practitioner with dyslexia would class themselves as not being of good health or character but instead able to be a safe and competent practitioner.

The NMC has responded to the Department of Health's study on regulating healthcare professional regulation[7] which considers the standard of proof for fitness to practice cases as well as regulatory activity (NMC 2006c). These proposals would affect dyslexic nurses where their competence to practice was in question as the study recommends that employers should be responsible for ensuring nurses are keeping their practice up to date. This has been rejected by unions and the profession's regulatory body. The NMC's response (NMC 2006d) suggests that the responsibility for considering allegations of impairment of fitness to practise rests with the regulating body and this should not be delegated.

The DoH (2006) review of regulations states:

> *More work is necessary on meeting this need for a more objective test of*
> *continuing fitness to practise. Crude measures could include complaints*
> *and negligence claims but these may not be sufficiently sophisticated.*

A general formal investigation is definitely needed; this is an appropriate tool for looking at disability and fitness to practice issues within the professions; this is being carried out already by the Disability Rights Commission[8].

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[7] The reviews can be found on www.dh.gov.uk
[8] www.drc.org.uk/employers_and_service_provider/fitness_standards_formal_inves.aspx

6.4   Patient safety

Investigating reported cases of patient harm the reviewers found that the General Medical Council and the Health Professionals Council have had no reported case of patient harm or concerns about fitness to practice due to errors made by dyslexic staff[9]. The National Patient Safety Agency (NPSA) had 3 cases reported to them in the last 4 years[10]. One of these was a health care assistant (HCA) who took a reading of a patient for blood clotting time but the reading she recorded did not match that recorded in the document slip from the practice. As a result, medication was not prescribed for the patient. The district nurse contacted the practice nurse to discuss this. The HCA was fully aware of the implications of the mistake and was very upset. The HCA was under a great deal of stress due to home circumstances which heightened her dyslexia problems. There was no harm to the patient.

The second case was of a student nurse with borderline dyslexia who misdialed a digit in a fax number when sending patient details and treatment plan to an assessment unit; instead they went to a private home address who then informed the district nurse. Again, there was no harm to the patient.

The third case was at an out-patient clinic where a staff nurse from another clinic registered a patient, saw an x-ray form and sent the patient to the x-ray department. The staff there came back with the patient querying why she had been sent as the form was actually an x-ray report containing sensitive information about a tumour. The patient did not appear to have read the report. The Staff Nurse is currently awaiting a work-based assessment regarding her ongoing problems with documentation and possible dyslexia

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[9] Personal communication with reviewers
[10] NPSA 2006   ref. 519.

A dyslexic nurse is likely to have well established coping strategies and therefore may not be any risk to patient safety. For example, the dyslexic nurse's heightened self-awareness or 'metacognition', such as understanding one's learning disabilities, including specific information processing deficits (Corley 2003), has been found to promote patient safety (Morris 2006). Millward (2005) found:

> *There are various degrees of dyslexia; symptoms are varied in type and severity. Some dyslexia will be mild and probably also 'undiagnosed'. Those who have acquired the dyslexia label on the other hand may have experienced various interventions designed to help them overcome or cope with their dyslexia. Yet others will have evolved a variety of complex coping strategies enabling them to function competently, despite their difficulties.*

Millward emphasised that it was important to identify the practical implications of dyslexia in the context of how the nurse functioned effectively in order to tailor interventions and reasonable accommodations. The question then must be who is most qualified to assess the functioning of the individual dyslexic nurse – the line manager, an occupational health nurse, an independent occupational psychologist?

However, to single out nurses who **are** functioning because of mostly anecdotal concerns about safety will lead to claims of discrimination. It may be that competence to function adequately in a specific role or post, rather than an overall list of expected behaviours, is needed when appraising any nurse's competence. As Pischke-Winn (2003) asked -

> *Are people with disabilities safe in the work environment? Or, are they safe for their patients? I found absolutely no data that suggested that they would be a safety risk to patients. I noticed as I looked at job descriptions for our facilities where there are nurses,*

that we often define essential functions as must hear, must see, must walk. Instead we should be defining these job descriptions in terms of specific work behaviors and functions that individuals are expected to perform. For example, "Can you detect a heart murmur?" Perhaps people can detect this in different ways, but it is the function not the method that we should be trying to identify in job descriptions.

However, if errors do happen the dyslexic nurse may be asked to complete an incident form (which is part of clinical risk management); this in itself would be daunting and difficult without support. However, most nurses without any disability will hesitate to disclose errors such as administrating an incorrect dosage of medication because of fear of blame:

> *The nurses thought the fear of disciplinary action and having to admit to making a "silly" mistake stopped a nurse from reporting an error if it had no ill effects on the patient* (Hand 2000)

In one study (Mayo 2004) only 45.6% of the nurses interviewed, believed that all drug errors were reported, and reasons for not reporting include fear of manager and peer reactions.

6.5   Numeracy

Numeracy is an essential requirement for nursing practice, for example, in drug administration. Sabin (2006) found that within nursing, most of the existing literature, and media scrutiny, had concentrated upon drug calculation because of the obvious possibility for immediate and serious mistakes. He goes on to state:

However, for all healthcare professionals, the inability to correctly interpret probability in terms of risk factors or to manage scarce resources may have equally injurious results.

Hall (2005) reviewed numeracy competencies in student nurses; these included deficiency in nurses calculation skill exists and errors in care delivery (e.g. medicine administration), include errors in mathematical procedures However, she goes on to consider dyslexia or dyscalculia as only two of the possible causes of errors in clinical practice:

Some nurses additionally face special learning problems such as dyslexia or dyscalculia. However, dyslexia alone does not necessarily mean corresponding mathematic problems and diagnosis of dyscalculia is estimated at only four to six percent of the population. (Coben et al 2003).

Dyslexics will be more competent in numeracy tasks such as calculating dosages if they understand inter-relating facts and procedures used to manipulate numbers rather than relying on pure recall of facts. The understanding requires many previous concepts and skills to be secure. These include clear and organised presentation of the sum on paper, a good understanding of place value and an ability to 'see' numbers in other ways. A classic example is the subtraction. If this procedure has to be performed purely as a recall exercise there are likely to be errors. (Coben et al 2003).

The NMC (2005) suggests that where an identified standard of numerical competence has been clearly stated as a minimum requirement for registration as a nurse or healthcare professional, as stipulated by obtaining a pass in an assessment, then that standard would apply to <u>all</u> students and there would be no requirement to make an adjustment to that for a dyslexic student (Sabin 2006).

In order to maintain fitness for practice, it is necessary to demonstrate the standard (and any associated criteria); reasonable adjustment is only given to those elements which were not specific conditions for registration, but could help a student or nurse in overcoming their disability to achieve that standard. Therefore, in the context of drug administration, calculating fluid balance charts or setting up an intravenous infusion, if the student or nurse is assessed or judged as lacking competence because of dyslexia or dyscalculia then the only adjustment that the practitioner could expect is the use of a calculator or extra time where it would be reasonable to be allowed that especially as there is no formal assessment method for numerical competence (Sabin 2006).

6.6   Record-keeping

In nursing practice clearly written records are essential for good patient care but this requires a high level of cognitive processing (Taylor 2003), for example, in the translation of heard spoken words into an articulate response into either spoken or written text. Nurses' lack of literacy skills and dexterity with technical terminology might hinder them. For example, a nurse may want to use a particular word to describe a patient and then realize that they do not know how to spell it.

Planning and organising notes and records may be difficult for the dyslexic (Morgan 2000 p.32).Other factors which may hinder the quality of nursing documentation include where an inappropriate word is chosen (Taylor 2003). Nurses who are dyslexic may therefore cause staff to interpret their records wrongly.

Illingworth (2005) found that for the nurses she studied routine tasks such as taking telephone messages, remembering names and verbal instructions, writing patient records or filling in forms were testing. Working under pressure could aggravate the situation.

6.7 Manual skills

Clinical skills that require physical expertise, such as taking blood pressures can be problematic for the dyslexic nurse as Morris (2006) reported; the participants in this study found problems with hand to eye co-ordination and manual dexterity, and identified the need for regular practice of particular clinical skills. By borrowing equipment, such as sterile wound care packs and sphygmomanometers, they were able to practise skills in the stress-free environment of their homes.

6.8 Technology

There are many clinical settings today that involve highly technological interventions (such as intensive care). Even in general medicine or surgery technology has an increasing large part to play in care, particularly in telehealth and telecare (Chamberlain 2004). Dyslexic nurses may not, however, find such advances a challenge as visual-spatial tasks are one of their strengths, particularly in the understanding and management of three-dimensional representations and the understanding and management of innovative composition (Parkinson 2004). Other strengths that could be utilised are their holistic thinking, i.e. being able to see the bigger picture, and creativity (Morgan 2000 Ch. 6). Any task or role therefore that can use these skills will enhance their self-esteem as well as supporting technological healthcare.

6.9 Teamwork

In any clinical setting there is a complexity of information and multi-dimensional tasks. This demands excellent teamwork. The dyslexic nurse can contribute to a

team which recognises diversity of roles and responsibilities in a team; so, for example, the dyslexic nurse may capitalise on their strengths of unconventional problem-solving (Morgan 2000, p.2003) when assessing patient needs and problems, while another member of the team would do the recording for patient documentation.

7 THE EMPLOYER'S RESPONSIBILITIES

7.1 Knowledge of duties to the dyslexic employee

It has been found that organisations are not always aware of their duties and responsibilities to the disabled employee and how and when accommodations had to be made: only 17% of organisations questioned by the United Kingdom Council for Access and Equality had a spontaneous awareness of the Disability Discrimination Act (DDA) (UKCAE 2006)

In a study for the Department of Work and Pensions, Roberts (2004) found:

> *There was a degree of uncertainty as to what constitutes 'best practice' in making adjustments and respondents reported that practical examples would be welcome.*

Employers now can get guidance from the Code of Practice published by the Disability Rights Commission (2004) which gives practical guidance on how to prevent discrimination against disabled people in employment or when seeking employment. It describes the duties of employers and others in this regard.

Employers should also ensure that their recruitment processes are open to dyslexic staff. For example that all job descriptions are checked by the manager and Human Resources Department for unnecessary job requirements that may serve to exclude any disabled people

7.2   Screening

Screening or diagnosis is important as it identifies the cause of difficulties thereby indicating the other kinds of support that are appropriate.   It can also clarify strengths and weaknesses to the person concerned.   It also provides an authorisation for funding (NAICE 2006).   Or the employer may wish to provide funding for a full assessment to be carried out with an employee's agreement. (Dyslexia Institute 2006).   When assessing the employee for learning difficulties, the specialist should take into the context of the clinical setting as many of the difficulties associated with dyslexia are situational; the work context is of crucial importance as difficulties can vary depending on the workplace (Kirk 2000).

After a diagnosis has been made that one of their staff is dyslexic, employers are frequently misjudged by that member of staff, who fears possible dismissal (Bartlett 2000). It often happens that employers react in an understanding and helpful way. However, understanding or sympathy is not sufficient to allow the dyslexic worker to be able to function satisfactorily. The employer needs to be made aware of what it means to be dyslexic and what changes can be made in the clinical setting and in working procedures that will allow a dyslexic employee to operate at the same level as other non-dyslexic staff.

Newly employed staff will have an occupational health screening. This will normally be a form or questionnaire, then attendance at an interview. If this occurs, it would help employer and employee if the employee recognises their own strengths and weaknesses and did some preparation beforehand; for example clearly describing how adjustments could be made to overcome the barriers to practice and a description of reasonable adjustments that have been made to clinical settings generally (HCP 2006). The Occupational Health Nurse needs to be aware of dyslexia and possible adjustments in the clinical setting, particularly if advice is sought:

… They must compare the requirements of the job to the person's abilities and difficulties, recommending possible strategies to assist the person to perform effectively in the workplace (Harriss 2005)

Many adults may feel very uncomfortable about discussing their difficulties, or may not realise the effects, or the extent, of their spelling errors or slow speed of working, for example. When approaching this subject, therefore, an employer needs to have due regard for the employee's feelings and self-esteem.

However, while the responsibility for explaining their own dyslexia appears to fall onto the shoulders of the dyslexic adult and, because of the problems many dyslexics experience in conveying the nature of their difficulties, the provision of simple written statements describing the nature and extent of their strengths and weaknesses can help to take away some of the stress experienced when a dyslexic adult interacts with their employer or colleagues (Bell 2002).

7.3   Reasonable adjustments

Reasonable adjustment is the responsibility of the employer. But what is reasonable? There are issues of practicability, cost, disruption, resources and availability of assistance. It is also about costs versus resources and funding but the Access to Work scheme can help with funding[11].

Pischke-Winn (2003) asked -

In the event a nurse (or prospective nurse) has a disability that negatively impacts performance of the essential "core" abilities/attributes or those that are specific to a position/role or work setting, answers to the following series of questions are critical:

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http://www.jobcentreplus.gov.uk/JCP/Customers/HelpForDisabledPeople/AccesstoWork/

1. Can the individual, with or without reasonable accommodation, engage in the activities that are essential for the delivery of safe, effective nursing care?

2. In what clinical setting(s) or positions is the individual best suited for employment?

3. Does the individual have insight into the implications of his/her disability?

4. In the event of "accommodation failure," does the individual have insight into the potential consequences as they relate to patient safety?

Pischke-Winn (2003) continues by stating that accommodating the disabled nurse is possible as there are so many jobs in nursing and that the qualifications needed for such diversity of posts must be the most important focus.

The British Dyslexia Association (2006) has given some suggested strategies (see Appendix 1). Any individual may require none, one or several of the strategies. The person's pattern of dyslexia may make some of these unsuitable. In a study (Goldstone 2002) of barriers to employment for the disabled, adjustments for disabled employees in general employment were found to be:

- Provide flexible working patterns/ working hours
- Allow for special leave
- Additional on the job support
- Provide (re) training
- Provide counselling
- "Partnering" with a non-disabled person/mentor
- Alter work/workplace by redesigning duties
- Provision of special equipment
- Modify workplace
- Job sharing
- Home working

The report also found that the costs of adjustments were higher for retaining staff:

> *Adjustments made in an attempt to retain the disabled employee were more often of high cost. 23% reported the cost as £1000 or more compared with 5% for new recruits and 11% for existing employees.*

Illingworth (2005) interviewed dyslexic nurses who identified dyslexia-friendly practices within their hospitals; these included providing computers, allowing access to degree courses and other courses to develop potential, giving extra study leave for these, getting help and support from colleagues and managers, clear structures such as signs and simple notices with large words and pictures and having a repetitive work pattern.

For the organisation some factors when considering what is reasonable are:

- whether taking particular steps would be effective in overcoming the difficulty that the dyslexic nurse faces
- to what extent it is practicable to take the steps
- what are costs to making adjustments
- how disruptive the adjustments might be
- what financial assistance there could be.

In the clinical setting adjustments should be considered by balancing possible environmental changes, such as increased equipment, with the individual changes such as one-to-one support: each factor should not be concentrated on solely (Illingworth 2005). However, an area that raises concerns (Pischke-Winn 2003) regarding 'invisible' disabilities such as dyslexia is that many of the accommodations granted, like having a quiet room to take an exam, sounds

reasonable when sitting an exam. But how many nurses work in a nursing environment where there is a quiet room?

The question of reasonable adjustments arose in 180 of the cases lodged under the Disability Discrimination Act between 1995 and 2000. The most common type of adjustment, mentioned in 33.9 per cent of the cases, was a transfer to an existing vacancy. (Incomes Data Services 2000).

The changes to the Disability Discrimination Act in December 2005 remove the requirement that individuals have to be suffering from a clinically well-recognised mental illness to receive protection under the Act. This change makes it easier for employees with stress related illnesses such as dyslexia to claim they are suffering discrimination under the DDA.

Employers need to understand how capable the dyslexic nurse can be and what assistance can be utilised to support them; assistance can include other agencies such as the JobCentre. A study in 2000 (Robinson) found evidence of obstacles to employment included a lack of understanding about the capability of disabled people, lack of knowledge about financial and technical assistance and undifferentiated approaches to access and accommodation. This study showed the need for better interagency contacts and a more effective information sharing strategy for employers, especially about the availability of systems of support and the strengths of disabled staff.

In HEIs adjustments are made commonly through:
- educating lecturers about the need to provide written materials in advance of lectures;
- support staff who offer advice on the structure of students work, prior to submission for assessment.
- offering less support but providing extra time to complete their work;
- requiring markers to compensate for impairments.

This gives rise to debates over standards and the boundaries between support and unfair advantage. Some are concerned about modifying exams that test competency in order to make accommodations for the disabled healthcare professional, for example the General Medical Council stated that it could not in law agree an alternative curriculum for the disabled student which covers a lesser order of knowledge and skill, but following this an employment tribunal said this stance showed a lack of appreciation of the possible adjustments that could be made (Carter 2001). The concerns include not only if an assessment is valid if it has been modified, but also about the ability to ensure equality of competencies, and the question whether, if the assessment method has been rearranged, it really the same competency that is being tested (Cohen 2004).

7.4   Justification

An employer's conduct towards a dyslexic employee would not amount to disability-related discrimination if it can be justified (DRC 2004). According to the DDA where less favourable treatment of a dyslexic employee might be justified (where it is **not** direct discrimination) would be if the reason for this treatment is both relevant to the circumstances of the particular case **and** extensive. This is an objective test. It means that there must be a reasonably strong association between the reason given for the less favourable treatment and the circumstances of that particular case. The reason must carry real weight and be of substance. It is not enough, for example, to use one single assessment by Occupational Health to justify discrimination (Wright 2003).

However, the employer is under a legal duty to make reasonable adjustments in relation to that dyslexic employee to remove the practice or any physical feature of the environment which is causing the problem. Justification for disability-related discrimination will therefore only succeed where the employer can show that it was **not** reasonable or practical to make those adjustments.

An example might be seen in the following scenario where reasonable adjustments had been attempted but failed and the employer had extensive reasons for justifying discrimination:

> *A newly qualified staff nurse is given a post on a busy surgical admission unit; she has been diagnosed at university with moderate dyslexia and had had accommodations throughout training. However, on the unit she struggles now with the fast pace and rapid turnover of patients. As a result her record-keeping has fallen below the standard expected by the unit manager. On her first interview with her preceptor, they discuss and negotiate that she spends more time on the computer completing the records and less on direct patient care but this entails other staff's work-loads increasing. The unit manager after a few weeks expresses concerns with the preceptor that patient care is suffering and there are too many risks. They decide it is not practicable or reasonable to continue with these accommodations and they cannot change the rapid turnover of patients. They decide the nurse will have to transfer to a less busy ward.*

In the past medical evidence has been used as a justification for less favourable treatment or dismissal. Since 2004 medical evidence needs to be used more carefully. Its relevance to the disabled person's ability to be able to do the job needs to be carefully considered. If the employer cites health and safety concerns as a justification, then the DRC would demand a risk assessment on that individual's practice to be carried out (DRC 2003).

7.5   Terminating employment

The NMC advise employers that where it is decided that to continue employing a nurse with a disability would pose too great a risk to patients/clients the nurse,

other staff members and employers have a responsibility to offer re-deployment to another area, where, within the scope of the Act, 'reasonable adjustments' can be made. Career advice, guidance and support should also be provided (NMCa 2006). The employer must ensure that the employee has an opportunity to consult with the employer over their termination. If a disabled employee is dismissed as a consequence of disciplinary action, the employer has to ensure that the dismissal can be justified and is non-discriminatory.

When a dyslexic employee has been dismissed, or about to be, people reported specific difficulties with employers increasing the number of hours they were expected to work and increasing their workload without apparent consideration of the impact it may have on the employee. However, few people said they had raised these issues with their employer (Lewis 2005).

7.6   Employment appeal tribunals

The employee can appeal against the employer for discrimination under the Disability Discrimination Act. There is unlimited compensation for 'injury to feelings' and financial loss. Claims need to be made within three months. There is no legal aid but there is a conciliation service[12].

The numbers of cases lodged under the Disability Discrimination Act (DDA) between 1995 and 2000 by type of impairment or disability due to specific learning difficulties (e.g. dyslexia) were 3.7 % (Incomes Data Services 2000). The most common reason put forward by employers as justifying discrimination was the employee's state of health or the amount of sick leave taken. This reason was given in 26.4 per cent of cases in which justification was pleaded.

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[12] http://www.drc.org.uk/usingyourrights/disabilitydiscrimination/index.asp

Under case law such as Dunham v Ashford Windows (Beachcroft Wansbroughs 2005), if the employee's condition substantially affects his or her ability to undertake day-to-day activities, then the medical reason for the condition will be irrelevant. The onus is on the employer therefore in any defence to prove how much they have attempted to make reasonable adjustments.

> *..Employers should be aware that defending stress type cases under the DDA will become far more difficult. The focus for employers should be not on the diagnosis of the illness itself but on ensuring all reasonable adjustments have been made and are "justified".* (Beachcroft Wansbroughs 2005)

Many dyslexic employees are likely to benefit from a decision of the Employment Appeals Tribunal heard on 3rd April 2006 by the Employment Appeals Tribunal, where it was held that anyone who is diagnosed as suffering from severe dyslexia by a competent expert will automatically qualify for the important security afforded by the Disability Discrimination Act 1995 (DDA), unless there are convincing reasons to throw out such evidence. This decision need to be taken seriously by employers as they are now under a duty to make reasonable adjustments to provide for such employees or face the consequences of disability discrimination claims.

> *It was argued on behalf of an employer that irrespective of the diagnosis of severe dyslexia, an Employment Tribunal was still entitled to investigate whether or not severe dyslexia had any effect on a person's ability to undertake normal day to day activities … there was no definition of "severe" or any guidance provided in the Act as to how severe dyslexia should be diagnosed. However it was successfully argued on behalf of the employee that once there is unchallenged medical evidence whereby an employee is diagnosed as suffering from severe dyslexia, that employee will automatically be able to argue that they have a disability as defined*

by the DDA and will therefore have protection against
discrimination. The Employment Appeal Tribunal also clarified that
the diagnosis of dyslexia is a matter for psychologists and, for
example, an occupational therapist would not be able to provide
expert opinion on whether or not an employee actually suffered
from dyslexia. (Linder Myers 2006)

7.7   A strategic response

Rather than wait for problems or issues to arise and possible discrimination or
safety issues arise, each organisation should be proactive in devising a strategy
to support and develop dyslexic staff and to counteract discrimination. As
Illingworth (2005) recommended:

Dyslexic staff should be involved in strategy development. The
strategy should be set within a framework that identifies
responsibilities of the organisation, personnel department,
managers, dyslexic employees and their colleagues.
Implementation should be monitored. An organisational approach
can be proactive, reach 'hidden' cases of dyslexia and involve all
professions. Using a purely individual approach will tend to be
reactive since it depends on individuals declaring their dyslexia and
it will have less impact on 'hidden' cases.

The duty for each NHS Trust to produce a disability equality scheme is stipulated
in the revised DDA (2005) with a deadline of Dec 2006 to produce one; this will
be monitored by the DRC. However, the Trust regulator Monitor which should be
assessing Trusts seeking foundation status have apparently failed to assess
equality policies (Snow 2006); this is in contrast with government policy on

promoting equality and diversity. Current confusion on monitoring responsibilities between Monitor and other regulators might lead to disabled nurses being discriminated against by their employers.

This new legal duty under the Disability Equality Duty from December 2006 requires all public authorities to actively look at ways of ensuring that disabled people are treated equally. In the NHS 'Positively Diverse' is the overarching programme for delivery of equality and diversity to NHS organisations and it forms a core part of the work of NHS Employers' equalities team[13]. All public authorities covered by the specific duties must also produce a Disability Equality Scheme. An example of such a policy can be found in the 5 Boroughs Partnership NHS Trust's Equality and Diversity Team which supports the disabled employee[14]. However, on searching for similar policies and schemes that meet the requirements of the revised Act, it is evident that not all Trusts have not yet gone beyond having a broad Equality and Diversity Policy and would therefore not meet the requirements of the Act. Trusts should also ensure they have support mechanisms for employees with dyslexia under the Department of Health's lifelong learning strategy:

> *The NHS must play a key part in addressing gaps in adult literacy and numeracy, through sensitive but positive action to support development of the skills base in all local communities.* (DoH 2001)

Nevertheless, concerns have been raised (Sabin 2006) around the challenges of implementing the Disability Discrimination Act (DDA). This may result in:

- Staff concerns about students on their placements who require what is seen as excessive support with drug calculations and drug rounds.
- Concerns about what will happen to these staff when they are registered.

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[13] http://www.nhsemployers.org/excellence/equality-diversity.cfm
[14] (http://www.5boroughspartnership.nhs.uk/txt_page.asp?sitemap_id=755

There may be, in time, tests to the implementation of the DDA from stakeholders such as healthcare providers, because of responsibilities to provide safe patient care and fears of claims of negligence.

8.   ASSISTANCE

8.1 Financial support

The Disability Discrimination Act (1995) and the Special Educational Needs and Disability Act (2001) give providers of education and training, and employers, a duty to address the needs of people with disabilities, including those with dyslexia. Support that might be funded includes provision of technology, and the technical support and training that go along with it. Support may also be in the form of one-to-one tuition, mentoring or other kinds of training (NAICE 2006),

Students with dyslexia in higher education may be eligible for Disabled Students Allowance (DSA) to cover extra costs whilst in training.
Eligible students may receive:
• A non-medical helpers' allowance, to pay for helpers such as note takers
• A specialist equipment allowance – for major items e.g. a computer.
• A travel allowance – for travel costs incurred due to a disability.
• A general disabled students' allowance – this allowance may be paid towards other disability-related spending.

Payment of the above will only be made with confirmation that a student has commenced training and in receipt of NHS Bursary payments but the student is expected to meet the costs of establishing a claim for disability[15].

To help those in employment Access to Work is a Department for Work and Pensions scheme, administered by JobCentreplus. The scheme provides advice and information to people with disabilities and employers. It can give a grant to employers to cover part of the costs that an employer may incur when employing a disabled person, for example the cost of specialist equipment or of providing support to a prospective employee at an interview. Both permanent and

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[15] http://www.nhsstudentgrants.co.uk/

temporary employees are covered by the scheme. Some private health insurance companies will fund assessments by chartered psychologists (Moody 2000)

8.2. Psychological and emotional support

8.2.1 Higher Education

Higher Education Institutes have recognised the need for academic support for dyslexic students. Most HEIs now have dedicated Disability Services which recommend needs assessments for disabled students and help them in gaining access to assistive funds such as the Disabled Students Allowance (DSA) as well as with ongoing support through their course of study (Wray 2005). From January 2006, the new 'Disability Equality Partnership' has taken on the responsibility for providing support to HEIs in promoting equality of opportunity for disabled students (Walmsley 2006)

Students can access support from Skill, the National Bureau for Students with Disabilities[16]. Skill promotes opportunities for young people and adults with any kind of disability in post-16 education, training and employment across the UK, acting as an exchange house of information and activity in every area relating to the education, training and employment of disabled people over 16 and plays a strong role in both policy development and practical provision (Tynan 2004). Also playing a part in supporting disabled student is the Action on Access Team which is the national co-ordination team for widening participation in higher education[17]. Higher Education Funding Council for England (HEFCE) is committed to enhancing provision for disabled students in higher education and aims to achieve this by supporting higher and further education institutions in this

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[16] http://www.skill.org.uk/
[17] http://www.actiononaccess.org/

area. The Student Awards Agency for Scotland, the Department for Employment and Learning in Northern Ireland fulfill the same role.

There were many creative and potentially helpful guides and tools for students found in this review that could also be useful for registered health care professionals. Some of these are listed below:

- Learner Notebook to aid Practice. Steiner L. & Ware P. (2002).
- Dyslexia Toolkit. A resource for students and their tutors. Goodwin V.& Thomson B. (2004)

However, there are still indications of unmet needs in several areas, notably support for specific subjects and with organizing coursework, learning in lectures, and academic writing skills (Mortimore 2006).

8.2.2 Clinical placements

Medical students are advised that support requirements may change in the transition from pre-clinical to clinical medicine:

> *Most dyslexic students find that being in hospitals undertaking the clinical element of their course demonstrates a stronger side to their abilities. For this reason, it is recommended that if students need support they should make use of the support services within their medical school.* (BMA 2006)

Nursing students now appear to be getting more support, both for their academic work and on placements. However, in 2001 Wright found that:

> *It is not yet known if this support system is adequate for our students. Generally students with dyslexia are achieving on the*

course (with one or two exceptions), but if this is due to the support
system or the student's own efforts is yet to be examined.

In order to reduce anxiety and to avoid last minute, ad hoc, support measures being put into place, it is recommended that where possible, adjustments are made in anticipation of dyslexic students or staff arriving in the clinical environment. However, this entails disclosure of the disability beforehand which the individual must agree to.

8.2.3 Employment

Colleagues and managers need to provide ongoing, effective and meaningful support and attention to how the dyslexic nurse functions in the work environment in order to promote adjustment and positive self-esteem. The results of this will be success in difficult areas and acceptance of the learning disability for the individual (Palombo, 2001).

There needs to be continued support in the workplace particularly at times of change, for example, working in a new clinical area. McNulty (2003) found in his research that -

> *Individuals appeared reliant on their patterns to adapt and were*
> *inherently more vulnerable than their peers to changes in their lives*
> *that might affect these ways of coping. Moreover, they seemed to*
> *be integrating the emotional experience related to their lifelong*
> *struggles attempting to attend to self-esteem issues.*

Opportunities to share with and support other dyslexic employees could be helpful. An example of this is seen in the Norfolk and Norwich University Hospital NHS Trust where a group of employees with dyslexia are meeting regularly to be able to offer support and assistance to one another and discuss

ways of coping with dyslexia (Norfolk and Norwich University Hospital NHS Trust 2003).

Other staff may counsel or attempt to instruct the dyslexic nurse but this is not always appropriate or helpful as Illingworth (2005) found. The participants in her study said:

> *Sometimes colleagues tried to tutor the participants but this caused problems when unsuccessful. People with dyslexia have their own style of thinking and learning, and may not be successful with other people's styles*

A clinical environment that provides repetitive tasks with slow turnover of patients, standardised documentation and is well-staffed will allow the dyslexic nurse to cope and be less stressed. Opportunities to build on their strengths, such as being creative and being good in visual-spatial tasks will increase their self-esteem. If creative or lateral thinking can be utilised by managers and colleagues, in consultation with the individual, to capitilise on their strengths rather than expecting them to cope on their own, then patient care and team functioning will improve.

8.3   Equipment and technology

New computer technology has meant that adult dyslexic have tools to transcribe, allowing them to concentrate on the content. Devices such as spellcheckers and thesaurus may give them better vocabulary skills.

Technological aids can include:

- Pre-recorded books, CD ROMs and videos on subject area
- Generating Ideas in a graphical format

- Laptops loaded with TextHelp and Inspiration
- Recording devices (digital recorders for use with PC)
- Directional microphones
- Portable spell-checkers
- Hand-held scanners/pens
- Voice activated software
- Electronic portable dictionary and thesaurus

- PC accessibility options:
  - Screen and text colour changes
  - Text enlargement and/or 17" monitors
  - Sound card and speakers
  - Copyholder
  - Trackball
- Specialist software:
  - Text Help- spelling and sentence construction
  - Inspiration - planning and revision
  - Kurzweil3000- reader (with scanner)
  - Dictation software

However, not all technology or software will resolve all the dyslexic's difficulties, and may even give them a false sense of security (Morgan 2000 p.155).

8.4   Accessible e-learning

There is little research available that specifically deals with the issues surrounding accessibility for people with dyslexia (Rainger 2003). However, web-based learning in nursing is an option that universities are starting to take but the design of material must take into account learning needs of dyslexic students. As Howatson-Jones (2004) states:

> *Language and presentation are crucial to making material*
> *accessible, especially in the absence of non-verbal cues. This is*

particularly pertinent to those who may have a hidden disability such as dyslexia, where certain screen patterns, colours and semantics may be barriers to learning.

Authors and academics should try to write in a clear, consistent and succinct manner.

"Make information explicit – especially the learning outcomes, assessment criteria, and online expectations. Don't let this information get lost amongst other material." (Blankfield et al, 2002).

People with dyslexia may not be able to scan through web pages or online materials as a way of speed reading, but they might be able to use their reading time more successfully if they can identify the sections they are in or the issue that the material is covering.

Tutors and developers of online materials need to be aware of the range of sensitivities of content, learning styles, cognitive limitations and learning strategies. They need to build in options for both the visual presentation and in the mode and medium of the learning material (Rainger 2003). E-learning materials, which have different media mixtures, may affect dyslexic learners differently to non-dyslexic learners as each group of learners will have different cognitive styles and therefore will have to make different efforts to understand the information represented. This means that some e-learning materials could increase the difficulties dyslexic learners are facing (Beacham 2003)

There still is a need for further research on design and accessibility of electronic teaching materials for disabled people that meet the needs laid down by the DDA. However, competition is strong in the arena of electronic resources which may hinder shared goals and developments (Seale 2003)

9   INTERVENTIONS

9.1 Career guidance

While the dyslexic nurse might be reluctant to disclose their disability to prospective employers, in fear of discrimination, it may be in their interest to do so, in order to get the clinical setting that is most appropriate for their needs and strengths. With support and increased insight into where their strengths and weaknesses lie, it can become apparent that there are placements that might suit them better and to find these areas will be an essential part of succeeding in the workplace (Rack 2002).

9.2 Literacy and numeracy interventions and outcomes

The most up-to-date and rigorous systematic review of interventions for dyslexic adults has been carried out on behalf of the National Research and Development Centre for adult literacy and numeracy (Togerson 2004). The study found that -

- Participating in adult literacy and numeracy tuition does produce more progress for the learner than not participating. Regular attendance was associated with greater progress.

- Highly recommended:
Teacher and student taking turns leading a dialogue concerning sections of a text with initially the teacher modeling the key activities of summarising (self-review), questioning (making up a question on the main idea), clarifying and predicting. Gradually the learner takes over and both the level of comprehension and the ability to self-monitor it improve.

- A 'modified numeracy' approach involving relaxation training and other psychological techniques, plus self-directed mastery learning had positive effects on arithmetic.

- Other factors thought to influence progress are supported by quantitative, empirical evidence; this is especially true of information and communication technology (ICT), workplace provision, numeracy, and writing.

- There are many approaches used by specialists including multi-sensory approaches, person-centred approaches and physiological approaches. Further information can be found at:
www.dfes.gov.uk/readwriteplus/understandingdyslexia,

9.3 Clinical strategies

Illingworth (2005) found that the nurses she studied had devised their own coping strategies illustrated in the table below.

Obstacle	Strategy
Filling in forms	Become familiar with forms so know what to fill in; get forms checked; ask someone else to fill in form
Lose concentration when writing report	Leave it and come back later
Remembering people's names	Repeat many times after meeting them
Remembering verbal instructions	Always have paper in pocket for notes
Spelling	Be aware of problem words, ask someone how to spell them, use memory techniques, dictionary, spell

	checker.
Taking and organising messages	Ask caller to speak slowly, read back messages over phone to double check, and keep all messages and results in one place.
Taking notes in lectures, and meetings	Develop own shorthand, pick out key points, use dictaphone, use handouts when available.
Writing letters, e-mails, records and reports.	Use set documentation, use set phrases, write things out in rough first, and get things checked before they are sent out, read novels to experience different types of writing.

Table 4: Strategies for overcoming obstacles (Illingworth 2005)

In drug administration dyslexic nurses again often find their own strategies to ensure patient safety as Morris (2006) found:
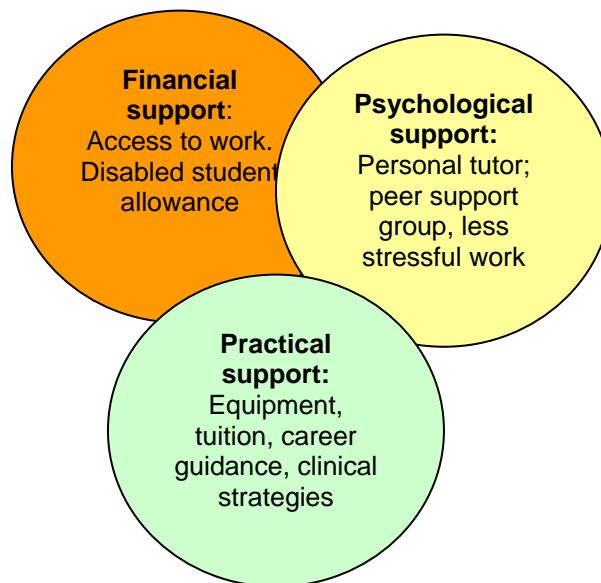
> *Awareness of problems with drug calculations prompted these participants to seek confirmation of the accuracy of their calculation from their clinical mentors. These participants also reported the need to check and re-check drug prescriptions prior to administration, acknowledging specific difficulties in reading the handwriting of the prescribing physician. Using capital letters on drug charts and other patient documentation was considered helpful in overcoming some of the difficulties experienced.*

Double-checking by two people when administrating medication was also a strategy used by nurses in Illingworth's study (2005); this is an advisable strategy for all nurses and is recommended by the Chief Nursing Officer (2004) in high risk circumstances, for example, where complex calculations are required, but it does not mean that even when there are two non-dyslexic nurses administrating medication that errors cannot happen:

Merely having two nurses involved in administration of medicines will not prevent errors happening.   (Nicol 2000)

Taylor (2005) found that the use of taped handovers in many placement areas was very helpful for students with dyslexia as tapes can be reviewed to check information. If taped handovers were not used then the student should take notes and ask questions to check the accuracy of notes.

Financial support: Access to work. Disabled student allowance

Psychological support: Personal tutor; peer support group, less stressful work

Practical support: Equipment, tuition, career guidance, clinical strategies

Figure 1: Possible forms of support for the dyslexic nurse

10. SELF-DETERMINATION

The dyslexic nurse, within any situation or setting, has the potential and possible capacity to act on the basis of self-knowledge and planning. When actions are supported by these factors, it is easier to persist and be successful, despite challenges. Adults with learning difficulties, who are successful, have been found to be proactive and fit situations to their strengths while minimising their needs. They learn to persist despite challenges, and they learn to seek creative solutions to responsibilities at hand (Corley 2002).

Technological advances have resulted in clinical environments in constant flux and complicated clinical decisions to be made (Grol 2002) and there will be challenges to persons with dyslexia brought about by the proliferation of technologies in the clinical setting. Nevertheless, with insight, metacognition and being proactive, the nurse can seek support to meet these challenges.

Being aware of capability to practice safely, or any obstacles to do so, is part of professionalism; as the HCP states:

> *As a responsible professional, you should tell your employer (if you have one) of any steps you are taking or any issues which might affect your fitness to practise. Although some matters may be personal, discussing these issues with an employer or another registered colleague could help you to reflect on your scope of practice and to get someone else's opinion on whether you can practise safely and effectively.*

Of course, the dyslexic nurse must recognise in the first place, that there are learning difficulties and seek assessment and support.

11. DISCUSSION

There is a paucity of research on nurses with dyslexia; indeed, there is little research for disabled healthcare professionals, particularly relating to fitness for practice. There are concerns both for lack of competence or fitness to practice (e.g. Watkinson 2002) and for discrimination against dyslexic nurses (e.g. Shepherd 2002). The little relevant research that exists is based on small numbers of participants and nursing students (Illingworth 2005, Morris 2006). There are very low numbers of actual reported cases of errors due to nurses with dyslexia and in the three cases reported to the National Patient Safety Agency there was no actual patient harm. There is only one recent hearing by the NMC concerning a nurse with dyslexia.

This deficit in research for all healthcare professionals is critical as standards will be contentious and the fitness to practice issues cannot be legislated for without firm evidence of criteria for underperformance and ensuing harm. This lack of evidence was also stated in the Disability Rights Commission's formal investigation of how fitness standards impacted on disabled nurses in 2004 (Sin);

> *There is a severe paucity of published material that has subjected this topic to scrutiny in a robust manner. Where available, coverage is patchy and focuses primarily on particular sub-groups or on an individual stage in the qualification and employment trajectory. **No coherent overview emerges**[18].*

As Dixon-Woods (2004) stated when looking at medical students with disabilities, without evidence about patient safety issues there will be a lack of policy and lack of assessment of the impact of dyslexia on patient safety.

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[18]Reviewers' own emphasis

However, the stigmatisation of dyslexic adults in employment, including nurses, has been highlighted (for example, Illingworth 2005). One result of discrimination of dyslexic nurses is the restriction on career opportunities; for example, disabled nurses may be thought of as being capable of answering phones at NHS Direct but not capable of working on wards (Morrell 2002).

The competing tensions of openness and disclosure versus stigmatisation and discrimination will perhaps always be evident despite education and awareness-raising input for organisations and individuals. The complex issues (illustrated in Figure 2 below) for the dyslexic nurse and the organisation therefore need further exploration to elucidate the difficulties, rationalise the controversy and counteract patronising and discriminatory attitudes.
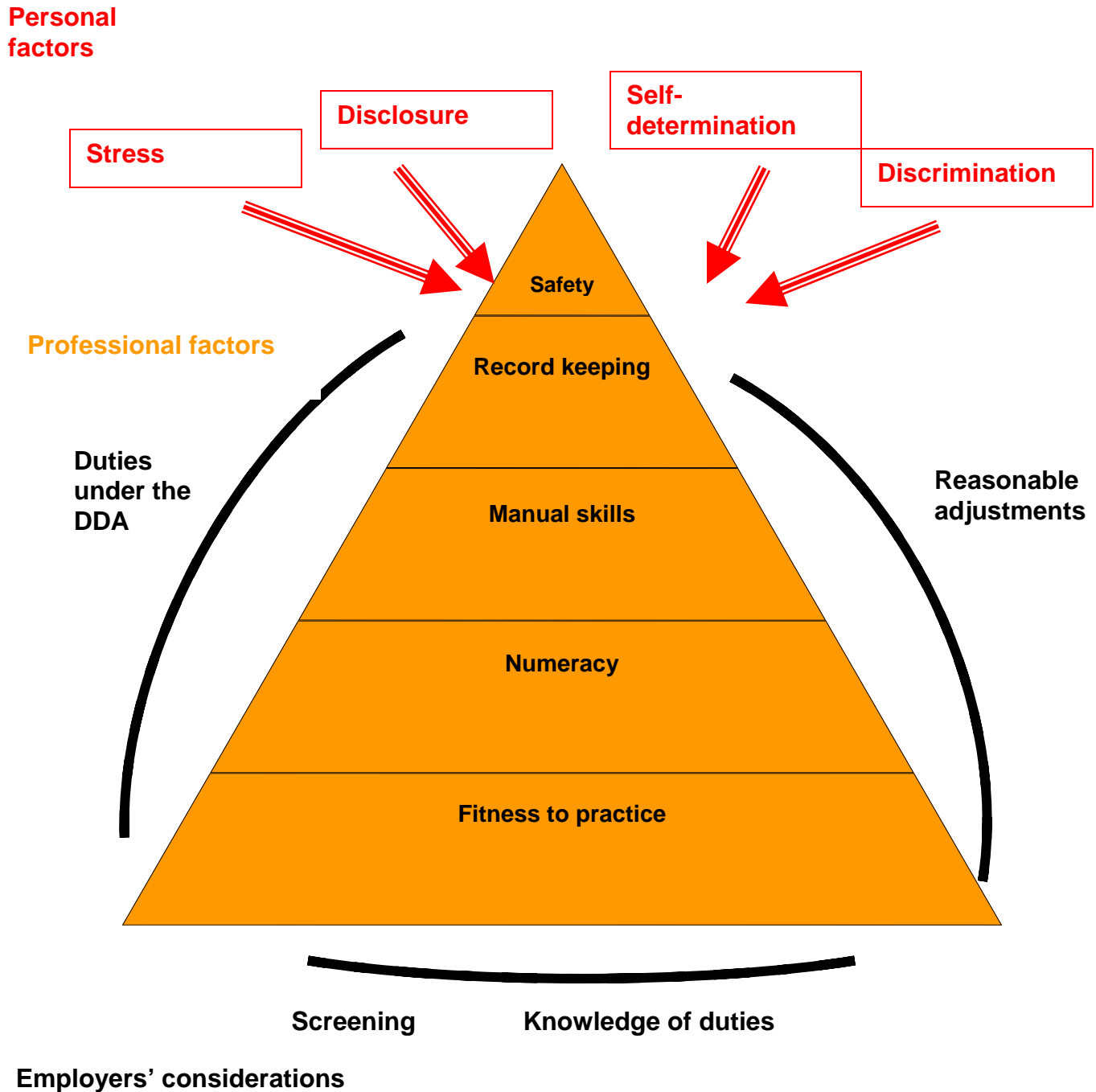
There is also the dichotomy between working to increase access to nursing for disabled people (as laid out in legislation) and protecting patients, illustrated by the NMC accepting that its main requirement for "good health and good character" in a student nurse differs from the usual employment goal of finding someone who is right for the job. The Council's demand that it is up to the government and employers to target the disabled during recruitment campaigns appears to pass on the responsibility for possible difficult and contentious decision-making. However, the NMC goes on to admit that they should look to change its fitness to practice standards for disabled students as part of its commitment under the Disability Equality Duty[19]

> *While it is appropriate for the NMC to outline the competencies required by registrants, it is not appropriate to state prescriptively how these should be achieved. Particularly for disabled people, there might be reasons why practice is modified in order to be effective.*

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[19] Disability Now. News Focus. http://www.disabilitynow.org.uk/news/newsfocus/july_2006.htm

Figure 2: Factors affecting the employment of the dyslexic clinician

Personal factors

Stress

Disclosure

Self-determination

Discrimination

Professional factors

Duties under the DDA

Reasonable adjustments

Safety

Record keeping

Manual skills

Numeracy

Fitness to practice

Screening   **Knowledge of duties**

Employers' considerations

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12. RECOMMENDATIONS

The recommendations which follow are made within the context of existing knowledge.

1.   An anti-discriminatory approach: the health service and healthcare professionals must embrace the social model of disability; i.e. the impairment itself not being the problem but rather the environment that needs to be modified to support the person. There is still inconsistency in screening, support and anti-discriminatory practice in organisations. A national standard of anti-discriminatory practice in NHS Trusts and the independent sector is needed.

2. In higher education: there is a need for educational specialists to develop strategies for identifying individuals with dyscalculia or dyslexia and to structure ways in which they can be supported in achieving their full potential. Mentors need to particularly further increase their knowledge base about dyslexia and how they can support the student on placement. HEIs should follow ADSHE's guidelines to support students and mentors/ practice educators to be posted on their web site.
www.adshe.org.uk/index.htm

3. Awareness-raising: it is important to raise awareness in the NHS of the effects of dyslexia in adults and to take steps to provide appropriate support before severe problems occur. It is recommended that where possible, adjustments are made in anticipation of dyslexic students or staff arriving in the clinical environment. Awareness-raising programmes for managers, human resources staff and staff representatives are needed.

4. Team approach: the clinical team working with the dyslexic nurse should ask themselves in what ways can they help the dyslexic nurse on their journey toward self-determination, for example, through extra support and

accommodations at times of change. It is important to identify the practical implications of dyslexia in the context of how the nurse functions effectively in their role in order to tailor interventions and reasonable accommodations

5. The clinical environment: when considering reasonable accommodations the factors to be considered should be whether taking particular steps would be effective in overcoming the difficulty that the dyslexic nurse faces, to what extent it is practicable to take the steps, what are costs to making adjustments, how disruptive the adjustments might be and what financial assistance there could be. Environmental changes should be balanced with help for the individual. Accommodations for drug administration, or balancing fluid intake or administering intravenous fluids, should entail use of a calculator or extra time where it would be reasonable to allow this. A clinical environment that provides repetitive tasks with slow turnover of patients, standardised documentation and is well-staffed will allow the dyslexic nurse to cope and be less stressed.

6. Strategic approach: each Trust should have a strategy that addresses issues of: specialist training for key staff, dyslexia screening and formal assessment, workplace assessments and adjustments, ensuring workplace policies, procedures and systems are compatible with a dyslexia-friendly workplace, information provision and the provision of support groups, advisers and mentors.

7. E-learning: providers of e-learning materials should be made more aware of the effects that media can have on learners' understanding and consequently learning outcomes for students who have dyslexia.

8. Enhancement of the clinical setting: environmental changes may include better lighting on wards and bigger signs; enhanced communication may help such as reduced use of abbreviations in e-mails, user-friendly job application

forms, IT training specifically for dyslexic staff, increased computer access, help from secretarial staff or colleagues in taking telephone messages, having Dictaphones or tape recorders for recording handovers

9. Self-determination: opportunities to share with and support other dyslexic employees could be helpful; however, the dyslexic nurse must recognise in the first place that there are learning difficulties and seek assessment and support. Being proactive, fitting situations to their strengths while minimising their needs and seeking creative solutions will increase their success in the workplace.

10. Research requirements:
    a) Research is needed into which types of disabilities are most or least likely to be reported and what the obstacles to declaration are.
    b) There needs to be more research, especially on safe practice. The NMC needs to collect data about disabilities when surveying registered nurses. Nurses with expired registration should be asked if a disability was the reason. Human Resources Departments could be surveyed to ascertain if disciplinary processes involved dyslexic healthcare professionals.
    c) Further research into the experiences of dyslexic nurses would increase the knowledge base and enhance interventions; this could be achieved through a longitudinal study of a cohort of student nurses, identified and assessed in the HEIs as having some degree of dyslexia, through registration to employment where they could be interviewed to ascertain the level of discrimination, support, accommodations and coping strategies they encountered. Their line managers could also be surveyed to assess the perceived levels of competence in that setting and role.

d) Research is needed to explore solutions that may be applied from outside of nursing and to evaluate the effectiveness of such strategies for nurses with dyslexia or dyscalculia.

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USEFUL RESOURCES

E-learning:
       http://www.techdis.ac.uk/seven/papers/

       http://www.key2access.co.uk/archive/dyslexia4.html

       http://www.edgehill.ac.uk/tld/research/

       http://www.drc-gb.org/PDF/2.pdf

Funding:
       www.niace.org.uk/information/Briefing_sheets/72-BW-Funding-support-dyslexia.pdf

       www.nhsstudentgrants.co.uk

       http://www.jobcentreplus.gov.uk/JCP/Customers/HelpForDisabledPeople/AccesstoWork/

Dyslexia in Higher Education:
       http://www.adshe.org.uk/index.htm

       www.bdadyslexia.org.uk/downloads/dsaguidelines.pdf

Self-help:
       Making Dyslexia Work for You. (2004) Goodwin V & Thomson B. David Fulton Publishers

<u>Employers:</u>

An Employers Guide to Dyslexia (2006) British Dyslexia Association.
http://www.bdadyslexia.org.uk/shop.html

Disability Rights Commission (2004) Disability Discrimination Act 1995.
Code of Practice. Employment and Occupation. The Stationary Office
http://www.drc.org.uk/library/publications/employment/code_of_practice_-_employment.aspx

<u>Awareness training:</u>

http://jarmin.com/demos/course/index.html

APPENDIX 1 Workplace adjustments

Table: <u>Reasonable adjustments in the workplace</u> (adapted from The British Dyslexia Association (2006)

Competence/skill deficit	Organisational strategies
<u>Written Communication, e.g. care planning</u> • General difficulty with reading	Give verbal rather than written instructions. Highlight salient points in documents. Use voice mail as opposed to written memos. Use speech to text software. Supply/use a reading machine – or allocate someone else to read aloud. Provide information on coloured paper (find out which colour helps the person to read best). Set up a computer screen with a coloured background to documents.
• Difficulty with reading and writing	Allow plenty of time to read and complete the task. Examine other ways of giving the same information to avoid reading. Discuss the material with the employee, giving summaries and/or key points. Utilise information prepared in other formats for example audio or videotape, drawings, diagrams and flowcharts. Use tape recorders. Use speech to text software.
• Spelling and grammar errors	Proof read work. Instant spell checker on all computers.
<u>Verbal Communication, e.g. handovers</u> • Difficulty remembering and following verbal instructions	Give instructions one at a time. Communicate instructions slowly and clearly in a quiet location. Write down important information. Demonstrate and supervise tasks and projects .Encourage the person to take notes and then check them. Ask instructions to be repeated back, to confirm that the instruction has been understood correctly. Write a memo outlining a plan of action. Use a tape recorder or dictaphone to record important instructions. Back up multiple instructions in writing or with diagrams.
• Difficulty with hidden meanings in conversation	Give clear concise and direct instructions; do not hint or make assumptions that you have been understood.

<u>Time and Work Planning, e.g. working on a busy shift</u>**.** • Concentration difficulties/distractions	Make sure the workplace is quiet and away from distractions for example away from doors, busy phones, loud machinery. Allocate a private workspace if possible. Provide a quiet working environment for a dyslexic employee by allocating libraries, file rooms, private offices and other enclosed areas when others are not using them.
<u>Coping with interruptions, e.g. answering phone during a busy shift</u>	Use a "do not disturb" sign when specific tasks require intense concentration. Encourage co-workers not to disturb the person unless absolutely necessary. When interrupting, allow the person to pause and write down what they are doing to refer to when resuming work. Ensure that each task is completed before starting another. Encourage outgoing rather than incoming calls. Offer training in how to use the telephone effectively for example jotting down key points before making the call.
<u>Remembering appointments and deadlines, e.g. for care team meetings.</u>	Remind the person of important deadlines and review priorities regularly. Hang a wall planner that visually highlights daily/monthly appointments, deadlines, tasks and projects. Supply an alarm watch. Encourage the employee to use the daily calendar and alarm features on his/her computer.
<u>Organisation of property, e.g. clinical environment</u>	Ensure that work areas are organised, neat and tidy. Keep items where they can be clearly seen for example shelves and bulletin boards. Ensure the team returns important items to the same place each time. Colour code items. Ensure work areas are well lit.
<u>Organising workflow, e.g. planning shift duties</u>	Supply and use a wall planner. Prioritise important tasks. Create a daily, dated "To Do" list. Use diaries. Write a layout for regular tasks with appropriate prompts for example for meetings or taking notes. Allow extra time for unforeseen occurrences. Build planning time into each day.
<u>General difficulties in maths, e.g. fluid balance charts.</u>	Reversing numbers: encourage the person to say the numbers out loud, write them down or press the calculator keys and check the figures have been understood. Supply a talking calculator
<u>Directional difficulties, e.g. going to placement</u>	Always try to use the same route. Show the route and visible landmarks. Give time to practice going from one place to another. Supply detailed maps.
<u>Short term memory problems especially names, numbers and lists, e.g. patients' names</u>	Use mnemonic devices and acronyms. Organise details on paper so that they can be referred to easily using diagrams and flowcharts. Check back understanding. Use multi-sensory learning techniques such as reading material onto a tape machine and then playing it back whilst re-reading. Use computer software; sometimes well developed programme menus and help features are useful. Use a calculator.

APPENDIX 2 Case studies

1. Accommodations in an HEI

Karen was a 1st year student in health studies. To meet the entry requirements she had completed an access course. This had been quite a challenge. She had problems with her studies during her first year and was uncertain she could go on. However, she was referred for screening and a diagnostic assessment for dyslexia and she was identified as having dyslexia. She was recommended to work with a specialist tutor for:

- Planning and organizing written work, e.g. selective reading and note taking techniques but this depended almost entirely on Karen's weak visual memory.
- Revision and exam techniques – building on her reliable auditory memory might prove a way forward
- Coping with short questions in exams – answering questions from past papers in writing, checking for accuracy using notes and textbooks, speaking answers into tape.

Results: in practice, Karen could answer quickly on tape. In the exam, she was easily able to answer 30 questions in 53 minutes. She gained 64% (her highest score).

The HEI was willing to accept a recommendation that this alternative method of assessment should be used by Karen throughout her course but further work would need to be done in relation to answering different types of questions.

- Answering essay-type questions – clarify main points via recall; using graphic images to represent key issues.
- Giving a standardised method for transcription

Results: Karen greatly improved her exam marks and made use of tapes to plan, organise and draft an assignment before putting it in writing. She intends to continue to use a tape recorder wherever possible in her work on the wards.

Heaton P. Mitchell G. Dyslexia. Students in Need. Appendix 17. 2001 Whurr

2. Placement assessment

Steve is studying a BSc in Nursing at his local University. In order to complete the degree, students have to pass a number of exams and also undertake three periods of work placements. Steve has dyslexia, which means that his handwriting is poor and so he has asked to be able to type up his patient records. He is also aware that colleagues may think he is more likely to make mistakes on

the drugs round, but as all nurses are checked before medication is administered to patients, he thinks this should be ok. Once he is qualified and employed, his employer would make reasonable adjustments such as these under DDA part 2. Despite an excellent track record, the third placement provider refused to make any adjustments for Steve, and spuriously cited Health and Safety law as a reason to expel him from the placement, stating the reason as being because his dyslexia meant he could not do the drug rounds and that his patient records were illegible. Because of this he failed his second year at University and will have to repeat the whole year if he wishes to gain his degree

Skill: National Bureau for Students with Disabilities

3. Interim order

Cath was a staff nurse on a busy surgical ward but could not cope with the demands there. She and her manager discussed the issues and arranged a transfer to a less stressful out-patients department; however, there were still problems with her record-keeping. She was reported to the NMC by the Trust she worked for as they felt she could has failed to meet the level of competence required of a "D" Grade Staff Nurse due to the disability of dyslexia despite significant efforts by both Cath and employer to overcome the challenges caused by her disability. The Interim Suspension Order is necessary for protection of the public and also in her own interest because there is a real risk of significant harm to patients and indeed her. She was given an Interim Suspension Order for 18 months.

 www.nmc-uk.org

4. Unsafe practice

Sara was a staff nurse on a renal unit; she was making frequent errors in maintaining accurate fluid balance charts. The practice manager had referred her for formal assessment for dyscalculia but there was no available funding and Sara was reluctant to seek any advice. The managers were concerned that her practice was unsafe but did not have any guidelines from their Trust as what they should do and were afraid that she would appeal if they dismissed her on grounds of discrimination.
However, Sara left her shift suddenly one day and handed in her notice as she said that nursing was not for her. The managers felt they had let her down.

Personal communication from manager.

5. Accommodations in Operating Theatre

Steve works as a surgical scrub nurse and has a severe learning disability, dyslexia, which affects his ability to read and write. When he was in nursing school, he dictated lengthy case management reports to his wife who typed the reports for him.
However, working in theatre he discovered that most of the documentation required was done on a one-page form that he memorized and simply completed with checkmarks, circles, and plus or minus markings. He uses a computer that has word prediction software built in for writing more detailed notes

Employment and Accommodations for People with Disabilities in Nursing Professions   Karen E. Wolffe, PhD
www.rushu.rush.edu/nursing/disable/chapter6.pdf

6. Issues of competence

In spite of many years successfully employed as a state enrolled nurse Eileen suddenly found her competence called into question because of concern that she would misread drug labels or dosages because of her dyslexia. Eileen has always been particularly conscientious and got someone else to do drug rounds with her as well as double and triple checking everything. Would this be reasonable accomodation or might it be good practice generally? Might it even be more likely for non-dyslexic nurses to be careless, given that Eileen was aware of her difficulties and made extra efforts to ensure accuracy?

Morgan E, Klein C. (2000). *The dyslexic adult in a non-dyslexic world*. Whurr.p121

7. Iain's story

For as long as I can remember I have had difficulty with reading and retaining some information. I have always wanted to be a nurse but with the qualifications that I was about to leave with it just would not get it done. I was to be limited in the choices of career I would have. Nursing was one word on a page that said not suitable career. I know, I thought, I will try classes that will get me that bit closer which I did.
So I went for interviews with colleges and went to College where I met some of my best friends and a tutor who actually praised my work and encouraged me to work towards being a nurse. So I did and got my SVQ in health, a higher and an HNC in healthcare and a place on the Mental Health Nursing Course which I got before my HNC. Words still danced about the page but that didn't bother me as

much as it used to so things had settled down for me and I looked forward to starting my course and the three years of work it would take to get my dream job. On my first placement I was talking to a client who was denying a fact about his illness and I was discussing this with them when I realised I was being hypocritical. During this time I was doing an annotated bibliography and was struggling so I took the bull by the horns and spoke to my tutor who put the wheels in motion and sorted out the test. After the test the psychologist said "yes you are dyslexic".
The university gave me an adapted computer and I met the support tutors who between them have helped me with every assessment and special arrangements for exams. And I now look at my dyslexia as an advantage rather than a disability. The point of this story is this disability does not prevent people from becoming a nurse only the lack of self belief does, I am not a dyslexic student nurse I am a student nurse who happens to have dyslexia

Skill: National Bureau for Students with Disabilities. 2004
http://www.skill.org.uk/info/case_studies/iain_pearson.asp

8. Access to nursing

Katie is a 45-year-old nursing student with three grown-up children, who left school at the age of 15 without any formal qualifications. She has 25 years' experience as a healthcare assistant on an acute surgical ward, and the hands-on delivery of care to patients prompted her to apply for nurse training. To acquire the necessary academic qualifications for nurse training, she has for the past five years attended evening classes at her local further education college and passed five GCSEs and an access to nursing course.

Katie is now in her second year of a three-year training programme which leads to the award of the Diploma (HE) Nursing. Although she was apprehensive about returning to full-time education, as she would probably be older than most of her colleagues and some of the lecturers, she is a popular student who willingly contributes openly to class discussion and is keen to share her life experiences. She also possesses excellent interpersonal skills which enable her to motivate other students and, overall, improve group dynamics.

The quality of Katie's clinical work is exemplary, and her enthusiasm and motivation are demonstrated and documented well in her clinical placement reports. However, Katie is dyslexic and is particularly anxious about the continual theoretical assessments and examinations. Although Katie has passed all of her college-based assignments, she feels that she is unable to demonstrate and apply her analytical thoughts and reflective skills adequately in a theoretical context. Her objectives during the second year are to improve her assessment grades and achieve good passes instead of borderline passes.

Strategies to help students learn effectively. Dix, G 18(32), 21 April 2004, pp 39-42. Nursing Standard

APPENDIX 3   Contacts

Replied:
1. Dr Helen May helen.may@heacademy.ac.uk Acting Senior Adviser for Widening Participation and qualitative research

2. Avril.Stobbart@lpct.scot.nhs.uk Practice Education Facilitator Edenhall Hospital

3. Dr Fiona Simmons School of Psychology Liverpool John Moores University F.R.Simmons@ljmu.ac.uk

4. Janet Skinner Head of Learning Differences Centre University of Southampton J.P.Skinner@soton.ac.uk

5. Dr Mary Dixon-Woods Reader in Social Science and Health Department of Health Sciences University of Leicester. md11@le.ac.uk

6. Joanne Guy (5MD) Strategic Placement Lead. Coventry PCT Joanne.Guy@coventrypct.nhs.uk

7. Lucy Stainer Senior Lecturer in Adult Nursing Bournemouth House. LStainer@bournemouth.ac.uk

8. Alex Barnes. Senior Lecturer with the Nursing department at the University of Worcester

9. National Patient Safety Agency

10. Health Professionals Council

11. British Medical Association

12. Nursing & Midwifery Council

No reply
   1. DBfK German Nurses' Association dbfk@dbfk.de

   2. The Swedish Society of Nursing ssf@swenurse.se

   3. Victoria.Eathorne@rcn.org.uk

   4. alan.lewis@lindermyers.co.uk (EAT)

   5. Dyslexia Adult Dyslexia Organisation

   6. National Center for the Dissemination of Disability Research (USA)
      ncddr@sedl.org

   7. Disability Rights Commission investigations@drc-gb.org