Dyslexia, dyspraxia and dyscalculia:

a toolkit for nursing staff

Royal College of Nursing

Acknowledgements

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Thanks should also go to colleagues from around the UK who acted as a sounding board and in some cases provided specific material.

Finally, invaluable insights into what it is like living (and working) with one of these conditions have been provided by members' personal stories – excerpts of which are threaded throughout this toolkit. Thank you to everyone who generously shared their story – I hope I have done you justice.

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Find your way around: you can navigate through this document by clicking on the links in the contents page or 'Back to contents' and 'Back to start of chapter' at the base of each page.

Contents

Foreword

This toolkit has been created to provide a practical guide to dyslexia, dyspraxia and dyscalculia. It aims to orientate the user on the nature of these conditions and their potential impact on an individual. It also sets out to raise awareness of our legal and professional responsibilities in respect of these conditions.

However, the main focus of the toolkit is to suggest **practical strategies** and **tips** that might help. Rather than trying to separate the conditions, which often overlap, areas of clinical practice which might be particularly challenging for individuals with these conditions have been identified. Linked to each area of potential difficulty are two sets of tips; the first are **self help strategies** that individuals can try themselves, the second is a complementary list of **strategies to help colleagues** which will hopefully be invaluable to those working as mentors, preceptors or indeed anyone who cares about those they work with, and who wants to help them reach their potential. Both lists of suggested strategies are derived from an in depth understanding of the underpinning issues surrounding dyslexia, dyspraxia and dyscalculia, and experience of seeing what has worked with others over the years.

The toolkit has been designed to be used by anyone working as a health care assistant, associate practitioner, student or registered nurse and acknowledges the diverse settings in which nursing staff work. The focus is mainly on difficulties that might exist in the workplace as there are already good resources available related to academic study. Furthermore, education providers are likely to offer specialised study support for those with a diagnosed learning difference who register with them.

All of the strategies included in the toolkit can be used in a variety of settings including in a hospital, primary care, or anywhere else that the role takes nursing staff. Undoubtedly, some of the suggested strategies will be easier to implement in certain areas and it is likely that some may need to be modified or adapted in certain clinical settings – but the toolkit does provide a starting point.

Divided into sections to enable the reader to dip in and out as required, the underpinning theory and background information has been kept to a minimum to keep the toolkit to a manageable size and enable it to be carried around in practice. More detailed and extensive information is provided in the RCN publication *Dyslexia, dyspraxia and dyscalculia: a guide for managers and practitioners*. Both documents identify sources of support and additional reading.

1

Introduction

For many years the Royal College of Nursing has recognised the impact of dyslexia, dyspraxia and dyscalculia on its members, and has sought ways of supporting individuals with these conditions to help them to reach their potential in whatever role or setting they work.

In 2006 the RCN Practice Education Forum commissioned a review of the literature on dyslexia in relation to practice (Dale and Aiken, 2007) which highlighted a wealth of issues and helped raise awareness, certainly in relation to dyslexia – the most common of the three conditions. While the literature review recognised the challenges, it was not able to offer any real solutions and there continued to be a need for a practical guide for managers, employers and the nurses themselves to identify strategies which can help. This toolkit aims to do just that.

The toolkit begins with an overview of the Disability Discrimination Act (1995 and 2005) and its implications. This is followed by a broad overview of specific learning differences – the umbrella term used to refer to dyslexia, dyspraxia and dyscalculia – and their overall effect on the individual. A more detailed introduction to each of the individual conditions follows, before the main focus of the toolkit – strategies to help. The toolkit concludes with an overview of equipment which might be of help to the individual.

It is important to acknowledge that the number of RCN members affected by these three conditions is substantial. Rough estimates suggest that 1 in 10 of the general population are affected and there is evidence to suggest than in certain caring professions this is much higher (Taylor, 2003; Hartley, 2006). One university found that 14 per cent of its student nurses had

been formally diagnosed as having either dyslexia or dyspraxia, although the numbers may be even higher when you add in those not formally diagnosed.

Finally, recent legislation which has included the Disability Discrimination Act (Her Majesty's Stationery Office (HMSO) 1995/2005), Special Educational Needs and Disability Act (SENDA) (HMSO, 2001) and the Equality Act (HMSO, 2009) mean that we can no longer ignore these issues. The RCN through its Disability Equality Scheme – ability counts (2007); and through specific recognition of the impact of dyslexia, dyspraxia and dyscalculia, are leading the way and clearly demonstrating their strong commitment to disability equality.

2

Disability Legislation

Aims of this section

- To provide you with an overview of recent legislation which relates to disability and inclusion.

- To explore the implications of this legislation in relation to the need for reasonable adjustments whilst maintaining professional standards.

- To identify the responsibilities of an employer and employee.

Over the past two decades a range of legislation has been passed addressing the needs of individuals with a recognised disability, which the 1995 Disability Discrimination Act (HMSO, 1995) defined as:

"any condition which has a significant, adverse and long term effect on the person's ability to carry out everyday tasks."

Under the terms of the Act specific learning differences (SpLDs) such as dyslexia, dyspraxia and dyscalculia were all classified as a 'disability' and it therefore became unlawful to discriminate against anyone with one of these conditions on the basis of that disability. This covered a range of areas including employment, education and access to goods and services.

In 2005 the Act was updated and required organisations to have a 'positive duty' to "promote equality of opportunity and positive attitudes; eliminate unlawful discrimination and encourage disabled people's participation." (HMSO, 2005).

Finally, the most recent piece of legislation is the Equality Act (HMSO, 2009) which became law in April 2010 and brings together all of the previous equality and diversity related legislation. This is classed as a 'Consolidatory Act' which will come into effect from October 2010 and will replace the previous legislation including the Disability Discrimination Act which will be repealed [1].

In view of the legislation which exists it is imperative that everyone working with staff who have dyslexia, dyspraxia or dyscalculia, whether as an employer, manager, colleague or mentor/preceptor are fully aware of their legal responsibilities.

Reasonable adjustments

Under the terms of disability legislation individuals are entitled to receive "reasonable adjustments" to help them overcome their difficulties.

The key word here is 'reasonable' and deciding what constitutes a reasonable level of adjustment. There is no legal definition of reasonable in this context, and it is up to the individual to agree whether they consider something to be reasonable or not. Perhaps it is important to point out that individuals must therefore be prepared to potentially defend any decisions that they make if challenged, and it is essential that a decision to judge a requested adjustment as 'unreasonable' is only taken after very careful thought, and if necessary professional advice. There are well documented cases of individuals receiving significant amounts of compensation where adjustments have been either refused or subsequently ignored.

Whilst all requests must be considered, the law does not expect us to make

[1] Except in Northern Ireland where the Disability Discrimination Act remains on statute.

unreasonable levels of adjustment and this needs to be considered when assessing 'fitness to practice' (see next section). Later sections of this toolkit suggest 'reasonable' strategies that could be used to support a colleague, but even these can become 'unreasonable' if required to excess. For example, a nurse with dyslexia may need to be shown how to do something several times before it 'clicks' and this is fine – however, if you have shown them 10 times in a morning and they still cannot remember, it is becoming a problem. Intensive support is not sustainable and might be considered as unreasonable, unless it is for a very specific task on a short term basis.

Requests for adjustments may come from a variety of sources. In the case of dyslexia and dyspraxia the individual will have a specialist report from an educational psychologist or other approved person, which details the areas of 'need' and the adjustments required. However these reports very rarely make recommendations related to the workplace as the person compiling the report is unlikely to have the relevant experience to do so. Furthermore, the assessment has often taken place when the individual was at university and the main focus may relate more to the academic aspects of the course than the clinical role. Recommendations may also come from an occupational health department or from other suitably qualified professionals, including doctors and occupational therapists.

For dyscalculia the situation is even more complex as at present there is no officially recognised screening tool that is appropriate for adults, although one is under development (see section 6 on dyscalculia for more details). It is therefore unlikely that specific recommendations will have been made.

Finally, a request for a specific adjustment may come directly from the individual concerned as they will have the greatest insight into their particular areas of need. These requests should be considered in the same way as recommendations from more formal sources. The key factor in determining eligibility for an adjustment is the formally diagnosed presence of a disability, not the source of the request.

Fitness for practice

Whilst disability legislation requires us to not discriminate against an individual with a disability, it does recognise that certain professions need to set and maintain professional or competence standards.

Section 54 (6) of the Equality Act (HMSO, 2009 p 36) defines a competence standard as "an academic, medical or other standard applied for the purpose of determining whether or not a person has a particular level of competence or ability".

Student nurses who have declared a disability will still be expected to demonstrate that they are 'fit for practice'. This means that they must meet all of the learning competencies and skills that all other students are required to do. However, the fundamental difference is that 'reasonable adjustments' should be in place before competence is assessed.

It is also important to remember that application of competence standards is not a defence against direct discrimination. Stereotypical assumptions should not be made, particularly in the case of 'what if' type situations. For example, that a nurse 'might not' be able to perform in certain emergency situations, unless there is clear evidence to support this.

The Nursing and Midwifery Council (NMC) in their *Standards of proficiency for pre-registration nursing education* (2004) state that the required level to enter the register is the ability to:

"...manage oneself, one's practice, and that of others, in accordance with The NMC code of professional conduct: standards for conduct, performance and ethics, recognising one's own abilities and limitations."

NMC (2004b, p5)

This clearly puts a professional onus on the individual to acknowledge any areas where they would not feel competent to practice and to take a personal responsibility to not put themselves in these situations.

Responsibilities of an employer

Having seen that disability legislation requires organisations to promote equality of opportunity and demonstrate positive attitudes towards disability, it is the responsibility of everyone within that organisation to help this to happen. However, those in a management, supervisory or mentorship/preceptorship role will need to ensure that colleagues and students for whom they are responsible, are allowed any reasonable adjustments which have been agreed.

Employers also have a responsibility to help staff where areas of difficulty are identified. The NMC expects staff to have regular performance appraisals (at least annually) during which aspects of poor performance are dealt with. In its publication *Reporting lack of competence; a guide for employers and managers* (NMC, 2004a) the NMC states it would not normally become involved in a case under fitness to practice unless the employer had already taken "considerable measures" to tackle the situation in the workplace first. Employers are therefore expected to identify training needs, set clear objectives and provide the employee with sufficient opportunity to improve the areas of weakness.

Some individuals with dyslexia, dyspraxia or dyscalculia will find certain clinical environments more challenging than others. For example ITU or an emergency department (ED), with their high level of noise and distractions, may not suit some individuals whilst others may find lone working in a community setting difficult. Where possible, members of staff who have found their working environment exacerbates their difficulties should be helped to find employment in a more suitable environment.

Finally, although there is often concern expressed regarding safety issues it should be noted that nurses with dyslexia, dyspraxia and dyscalculia are usually very aware of their strengths and potential challenges. As a result they are extremely careful about checking things they are less confident about in order to avoid making mistakes, particularly those that involve patient safety (Morris and Turnbull, 2006). This is highlighted in this personal story – it

Personal stories: A&E staff nurse

I was initially diagnosed as having dyslexia in 1992 when I was halfway through my nurse training. At this time it was seen as a barrier to nursing and I was asked to leave, because it would be "dangerous to have a nurse with dyslexia".

After successfully exploring other careers, I realised that I was more than capable of training to become a nurse, and in some ways would be less dangerous than someone without dyslexia, as I would be aware of my problems and double check calculations and spellings of drugs to ensure accuracy.

In 2008 I qualified with a 2.1 honours degree in adult nursing and now work in a busy A&E department, and love it !!!!

should be noted that when the nurse in question originally commenced training in 1992, the Disability Discrimination Act had not been introduced. The nurse later recommenced her training and as the story shows has proved that it is possible.

For further guidance on the responsibilities of an employer in relation to the DDA please see Section 6.1 in the guide for managers and practitioners.

Responsibilities of the employee

The NMC, through its code of conduct (NMC, 2008), clearly expects practitioners to work within the limits of their abilities, thus putting the responsibility to acknowledge any limitations and act in a responsible and professional manner to address these on the individual.

Failure to do so could result in a potential allegation that the nurse is unfit to practice through a 'lack of competence'. This new category was introduced through the Nursing and Midwifery Order of 2001 and came into effect in August 2004. It was designed to deal with "intractable cases of lack of competence after all other avenues have been exhausted", and defines lack of competence as:

> "...a lack of knowledge, skill or judgment of such a nature that the registrant is unfit to practice safely and effectively in any field in which the registrant claims to be qualified, or seeks to practise."

> NMC (2004a)

This therefore assumes that an employee will only seek employment in areas in which they feel able to practice safely. For the vast majority of nurses this will not cause any particular problems, but there may be

occasions where an individual has identified specific areas of difficulty that may be made more challenging by the environment. This might be as a result of background noise, frequent distractions or lone working. Whilst it is hoped that the employee will be able to develop strategies to overcome the difficulties (see later sections of this toolkit) there may be cases when the individual may need to consider moving to a more suitable environment or role.

Disclosure

The choice of whether or not to disclose a specific learning difference is a personal one and is something that needs to be considered carefully. Employers need to promote a culture of inclusivity, where individuals feel able to discuss their specific needs without fear of discrimination or negative attitudes.

At the same time the individual needs to be aware that unless they disclose their disability, and in certain cases provide evidence, that they will not be able to receive the 'reasonable adjustments' that they require and are putting themselves at a disadvantage.

3

What is a specific learning difference and how do these impact on the individual in the workplace?

Aims of this section

- To identify what is meant by a specific learning difference (SpLD).

- To explore the impact of a SpLD on the individual in the workplace.

Introduction to specific learning differences

Specific learning difference (SpLD) is an umbrella term used to describe a range of conditions including dyslexia, dyspraxia and dyscalculia. While these conditions all have distinct areas of difficulty associated with them (which will be explored in Sections 4, 5, and 6 of this toolkit) their neuro-cognitive profiles often overlap. This sometimes results in an educational psychologist choosing not to attach a specific 'label' such as dyslexia or dyspraxia in their report, but will instead 'diagnose' the individual as having a specific learning difference. Of the three dyslexia is arguably the most common, and also the one on which the most research has been conducted and literature published. Consequently throughout this toolkit there will be

instances where dyslexia is referred to in isolation – that is not to suggest that the other two conditions are not equally significant to the individuals concerned but merely reflects the literature base which currently exists.

In terms of identifying which condition affects an individual, it could be argued that the label itself is less important than the need to recognise the specific areas of difficulty that they are faced with. Therefore, whether the individual is diagnosed with 'dyslexia', 'dyspraxia', 'dyscalculia' or a 'specific learning difference' is immaterial. All of these are classed as a disability under disability legislation and individuals with any of these conditions will require understanding and support to help them to reach their potential.

The situation is further complicated by the fact that each of the 'conditions' represents a spectrum of difficulties. For each of the potential difficulties listed as commonly attributed to dyslexia, dyspraxia or dyscalculia, the individual will be somewhere on a continuum ranging from no difficulty at all in that area through to severe difficulties. This makes all three conditions incredibly diverse.

Perhaps because the conditions are so diverse, and therefore potentially difficult to quantify, there are those who choose not to believe that they exist. Instead they prefer to view them as a middle class euphemism for slow learning or under achievement – a factor which does nothing to help those struggling to overcome very real difficulties associated with their learning difference. While it will no doubt take some time to re-educate these cynics, there is now a significant body of scientific research from across the world that proves the conditions do exist and which help us to identify ways of supporting the individuals affected by them.

Coping strategies

These individual variations are further compounded in adults by the development of very successful and innovative personal coping strategies that have been highlighted in several research studies on dyslexia (Lefly and Pennington, 1991; Miles 1993). These may be techniques that the individual has developed, such as those identified in Section 7 or sometimes by just avoiding areas that are particularly challenging. Avoidance may on occasions be an appropriate strategy, for example choosing to avoid difficult spellings such as 'diarrhoea' by substituting 'loose stools' may work, at least in the short term. However it is important for the individual to acknowledge areas that are being avoided and endeavour to find other ways of conquering the difficulty. This is particularly so in the case of a student nurse who may need to be able to do it once they qualify, and mentors must ensure that students are being assessed on all required competencies.

Positive aspects of specific learning differences

While a lot of attention is paid to the areas that a person with dyslexia, dyspraxia or dyscalculia might find difficult, it is important to recognise the strengths that they also posses. Nursing often attracts individuals with these conditions because of their caring and compassionate nature. We also know that they are likely to be creative and good at problem solving. Finally and perhaps because of the daily challenges they face, there is a lot of evidence which highlights how hard working and determined to succeed they are.

The emotional impact of a SpLD

For many adults with a specific learning difference one of the greatest challenges is coping with a late diagnosis, which has often been triggered by academic failure during their training or further studies. Despite advances in the recognition and detection of SpLDs in children there are still a significant number of people who are not picked up until much later in life. This was highlighted in relation to dyslexia by the National Working Party on Dyslexia in Higher Education study (Singleton, 1999). This included data from 195 institutions and exposed the "true" extent of the problem when it discovered that 43 per cent of the total university dyslexic population were only identified as being dyslexic after their admission to university. A similar pattern is likely to exist for dyspraxia and dyscalculia.

While diagnosis often brings relief, as it explains why things might have been difficult, there is often also anger and frustration that the condition was not recognised and help provided much sooner (Cowen, 2005).

Furthermore, the fact that these conditions are classed as disabilities brings its own challenges and requires a lot of sensitivity. The following quote comes from a practice nurse who highlights a feeling shared by a lot of people with dyslexia.

Personal stories

"I do not believe that dyslexia is a classic 'disability' because it is a difference in the brain make up and that difference makes me the way I am... I think that my brain is okay and it is what makes me a good nurse."

The 'disability' label is a highly emotive one and it is easy to see how this might make people feel. The nurse in the quote sums it up beautifully when she explains that her brain is just designed differently and that does not change who she is. Nevertheless there are times when the 'label' can be a positive thing – it is a necessity to access certain types of support, such as provision of certain equipment or other types of reasonable adjustment. We need to recognise that neuro-diversity exists and that individuals with the conditions that come under its umbrella are just the same as everyone else.

Finally, individuals may experience stress if they fear discrimination and struggle to conceal their problems. They may lack self confidence and feel isolated. Having the opportunity to talk to others in the same situation may be beneficial, not only for the emotional support, but also the opportunity to share helpful tips and strategies.

Challenges in clinical practice

Whether an individual is working as a health care assistant, associate practitioner, student or registered nurse the challenges of the clinical environment remain the same. It is busy, unpredictable and complex. Strategies that might have been developed at school or university may not be transferable and tips for survival published by specialist groups such as the British Dyslexia Association may not translate well into a clinical setting. Finally, clinical practice and the roles within it are incredibly diverse, with individuals working autonomously or in teams; in primary, secondary or tertiary care settings across a myriad of specialties.

It is therefore imperative that those working in a health care setting, who have dyslexia, dyspraxia or dyscalculia, are able to devise strategies that will work for them in the practice setting. All of the strategies and tips suggested in Section 8 are designed to be used in practice although some might need slight modification in certain specialised settings.

4

Introduction to dyslexia

Aims of this section

- To provide a brief introduction to dyslexia.
- To identify aspects of the individuals life which may be affected by their dyslexia.

What is dyslexia?

Of the three conditions covered in this toolkit dyslexia is probably the one that most people are familiar with. In a small survey of RCN members attending an Education Forum study day, 32 per cent said they felt very well informed of the issues surrounding dyslexia, as opposed to 6 per cent regarding dyspraxia and 10 per cent for dyscalculia. However, despite this apparent level of awareness Salter (2010) has suggested that whilst most people have heard of dyslexia very few can accurately describe the skill areas that it affects.

As a condition, dyslexia has been defined in many ways, as our knowledge and understanding of its complexity develops. The following definition by Peer – written on behalf of the British Dyslexia Association – has been chosen as it is concise, easy to understand but still clearly identifies the major issues. Peer describes dyslexia as:

"a combination of abilities and difficulties which affect the learning process in one or more of reading, spelling and writing. Accompanying weaknesses may be identified in areas of speed of processing, short-term memory, sequencing, auditory and/or visual perception, spoken language and motor skills."

Peer (2002)

Some of these areas of difficulty are relatively well known. However, it is the less publicised aspects which are likely to cause the most problems in clinical practice with organisational difficulties often presenting the ultimate challenge.

Dyslexia is also the most prevalent of the three conditions. Nationally it is estimated to affect 10 per cent of the population, although the incidence in caring professions such as nursing may be higher. It is therefore imperative that we can recognise it and provide appropriate help and support to those affected by it.

In 2006 the Royal College of Nursing commissioned a review of the literature on dyslexia in nursing practice (Dale and Aiken, 2007). Available on the RCN website www.rcn.org.uk it provides a comprehensive and valuable overview and is highly recommended reading.

Characteristics of adults with dyslexia

As with all specific learning differences it is important to remember that every individual will have their own personal profile of strengths and areas of difficulty. The following list of potential areas of difficulty is drawn from Reid and Kirk, 2001; Reid, 2003; Dale and Aiken, 2007 and Skinner, 2008, along with extensive personal experience of working with individuals with dyslexia. Although it highlights the breadth of areas affected it must be remembered that no one individual is likely to experience all of these.

Memory difficulties:

- may take longer to 'fix' information into their long-term memory

- may require information to be presented more than once

- dyslexic people often find it more difficult to discard irrelevant or redundant information which could lead to 'memory overload' and confusion

- may have problems remembering colleagues or patients names, drug names and medical conditions

- may find it difficult to remember phone messages or other information to pass on to colleagues

- may find it difficult to learn routines and procedures

- may find it difficult to transfer learning into a new setting (apply theory to practice).

Organisational difficulties:

- may appear to have a short attention span and be easily distracted

- may have difficulty following instructions

- may have difficulty in ordering their ideas

- may have problems sequencing the order of tasks correctly

- may have problems with filing and looking up information alphabetically or sequentially

- may find it difficult to react quickly in busy environments or in an emergency

- may find it difficult to multitask as this requires a good memory, time management skills as well as the ability to work sequentially and be organised; having to do these simultaneously may overload their coping strategies.

Time management – individuals with dyslexia may find it difficult to:

- plan ahead or plan their work schedule

- estimate how much time is needed for a specific task

- complete tasks on time

- students may find it difficult to balance coursework and placement commitments.

Reading – individuals with dyslexia may:

- feel embarrassed about reading aloud

- misread unfamiliar words

- read very slowly and find scanning or skimming difficult

- find text is distorted, particularly black print on white

- find it difficult to read with noise distractions

- have difficulty understanding medical and pharmacological language particularly those words which look or sound similar

- have difficulties with abbreviations

- have difficulty reading information from whiteboards

- have difficulty reading information on charts

- need to re-read things several times to get the meaning.

Writing and spelling – some individuals may have difficulty with:

- legibility

- writing in an appropriate language

- writing concisely

- writing accurately – their work may contain frequent spelling and grammatical errors

- checking for mistakes in their written work

- writing under time pressure, some individuals may write very slowly and need to re-draft their work

- spelling technical terms such as drugs and medical terms, especially those which look or sound similar

- identifying numbers and letters and/or getting them in the correct order

- filling in forms, especially when required to do so at speed.

Language – some individuals may:

- feel embarrassed about language

- struggle to find the right word to say

- mispronounce unfamiliar words

- find it difficult to express themselves orally and talk in a disjointed way

- find it difficult to give clear instructions and/or information and have a tendency to 'go off on a tangent'

- have problems presenting verbal information in a structured way, for example in handovers may jump from topic to topic rather than following a logical sequence

- sometimes experience a 'mental block' and be unable to express ideas clearly, particularly under stress

- take everything 'literally' or at face value (beware of words with double meanings).

Motor skills:

- may have right and left coordination difficulties

- some students may take much longer to learn to follow a sequence (for example, wound dressing).

Positive attributes

With all of the specific learning differences, individuals have particular strengths which are also typically associated with the condition. In the case of dyslexia they are likely to be:

- caring/empathetic

- intuitive

- good strategic thinkers

- good at problem solving

- creative and original

- determined and hard working

- holistic thinkers.

5

Introduction to dyspraxia

Aims of this section

- To provide a brief introduction to dyspraxia.
- To identify aspects of the individual's life which may be affected by their dyspraxia.

What is dyspraxia?

Dyspraxia is a developmental coordination disorder (DCD) which results when parts of the brain fail to mature properly as they develop. Reasons for this are complex and still the subject of research. However, theories exist surrounding factors affecting foetal development during pregnancy, prolonged labour and the effects of prematurity (birth before 38 weeks) or post maturity (birth after 42 weeks) (Portwood, 2000).

Dyspraxia is thought to affect up to 10 per cent of the population, with 4 per cent being severely affected (Colley, 2005). There is also some evidence in children that boys are more likely to be dyspraxic, at a ratio of four boys to every girl (Portwood, 2000) although this is less evident in adults.

The Dyspraxia Foundation describes dyspraxia as an:

"...impairment or immaturity in the organisation of movement. Associated with this there may be problems of language, perception and thought".

Dyspraxia Foundation (2010)

There is evidence that dyspraxia frequently overlaps with other developmental conditions including attention deficit disorder (ADD), attention deficit hyperactivity disorder (ADHD) and Asperger's syndrome. Whilst some adults with dyspraxia will only display signs of dyspraxia they are felt to be in the minority, and the co-existence of one or more of these other conditions is much more likely (Colley, 2005).

Characteristics of adults with dyspraxia

As with all specific learning differences it is important to recognise that every individual will have their own personal profile of strengths and areas of difficulty. The following list of potential areas of difficulty is drawn from a range of both published and unpublished sources including Portwood (1999, 2000) and Colley (2005). While it highlights the breadth of areas affected it must be remembered that no one individual, however severely affected, is likely experience all of these symptoms. Indeed those with mild dyspraxia are only likely to exhibit a few of these symptoms.

Attentional problems, poor concentration:

- may veer off at tangents during a conversation
- may find it difficult to answer direct questions
- concentration is poor and many adults display the symptoms of Attention Deficit Disorder (ADD)
- tends to be over sensitive to noise.

Language:

- speech can be loud and fast
- they may have problems organising the

sequence of their speech, in other words ramble and not prioritise key information where necessary

- there can be problems with intonation

- may have problems pronouncing certain words

- they may misinterpret what they hear

- can have problems picking up on non-verbal signs and in judging tone or pitch of voice.

Obsessional characteristics:

- presence of obsessional behaviours, probably as a result of developing routines to give their lives structure; this may be identified as an obsessional compulsive disorder (OCD).

Coordination difficulties:

- problems in differentiating left from right

- problems using certain pieces of equipment

- poor hand eye coordination

- poor handwriting due to problems with fine motor movement

- inadequate grasp causing problems with dropping things.

Emotional problems:

- low self esteem

- emotionally fragile (may become very distressed at minor things)

- highly excitable, may find it difficult to control emotions

- may suffer from clinical depression.

Problems with organisation and memory:

- poor concept of time, often late for appointments

- information processing problems

- poor sequencing

- problems recording information

- poor memory

- difficulty following instructions particularly when more than one at a time

- may be slow to finish a task due to tendency to daydream.

Gross motor co-ordination problems:

- poor balance, posture and fatigue make it difficult to stand for long periods

- can be clumsy, spilling things or tripping over.

Perception

- poor visual perception

- over sensitivity to light.

Positive attributes

Like the other specific learning differences, individuals with dyspraxia have particular strengths associated with the condition, and tend to be:

- caring

- creative and original

- determined and hard working.

6

Introduction to dyscalculia

Aims of this section

● To provide a brief introduction to dyscalculia.

● To identify aspects of the individuals life which may be affected by their dyscalculia.

What is dyscalculia?

Dyscalculia is probably the most controversial of the three conditions covered in this toolkit. There is widespread debate surrounding its true nature, which makes it difficult to both diagnose and to estimate its incidence. The most widely quoted definition of dyscalculia was put forward by the Department for Education and Skills in 2001:

> "...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. Even if they produce a correct answer or use a correct method, they may do so mechanically and without confidence."

> DfES (2001)

Based on this very broad definition, some authors estimate the incidence to be between 4 per cent and 6 per cent of the population (Bird, 2007). However it is interesting that Geary (1993), an American Psychologist, attributes the difficulties that dyscalculics have with maths as due to a poor long-term semantic memory (memory

for facts) and poor working memory (a temporary storage facility for information that is currently being processed), both of which are commonly associated with dyslexia. This leads to the inevitable question of whether someone really has dyscalculia or dyslexia?

It must also be acknowledged that there are a significant number of people who have 'self diagnosed' their dyscalculia because they are bad at maths. In some cases this is due to poor teaching, anxiety or a lack of interest in the subject. While they no doubt have very real problems, Butterworth and Yeo (2004) and Hannell (2005) suggest that these individuals will improve quickly when they receive appropriate instruction, whereas those with true dyscalculia will require much more intensive support.

This suggests that the number of people who have 'true dyscalculia' may be much smaller than originally thought. If we view dyscalculia as being much more than being bad at maths and linked to a much more fundamental problem, namely a total inability to conceptualise numbers, the number of people affected drops significantly. This total lack of concept of numbers means that if you ask someone with dyscalculia "which number is bigger – 10 or 100?" they would have no idea.

As an employer or university would normally require a formal diagnosis of dyscalculia before they were obliged to consider reasonable adjustments, the challenge of obtaining that diagnosis needs to be considered. Unlike dyslexia and dyspraxia, where a variety of screening tools and standardised assessments are available to assist the diagnostic process, the situation is less advanced in relation to dyscalculia. Tools such as the *Dyscalculia Screener* developed by Butterworth (2003) were designed to be used with children up to the age of 14 and only give reliable results in this age group. Consequently a more adult

focussed tool *DysCalculiUM* is currently being developed and tested by Loughborough University (Beacham and Trott, 2005). This focuses more on the understanding of concepts and interrelationships associated with the more advanced mathematics required for higher education. However, those involved in its development have already highlighted that as a result it may not provide reliable or valid results for students studying science based courses.

Characteristics of adults with dyscalculia

As with the specific learning differences previously discussed, it is important to remember that every individual will have their own personal profile. The following list of potential areas of difficulty is drawn from Poustie (2000), Hannell (2005), Bird (2007) and Hendrickx (2010), and highlights the breadth of areas which might be affected in someone who has 'true' dyscalculia. Due to the significant impact these are likely to have on a nurse's ability to carry out safe drug calculations, it is essential that a correct diagnosis is made by a suitable expert and that individuals are not labelled dyscalculic when they are merely weak at maths.

General numerical problems:

- problems reading numbers

- problems writing numbers down (may even copy incorrectly)

- problems sequencing numbers (from small to large, for example)

- loses track when counting

- conceptual difficulties with size (which is bigger – 10 or 100?)

- no appreciation of the concept of decimal places

- conceptual problems with units of measurement (mcg, mg, g)

- difficulty learning times tables

- difficulties remembering and dialling phone numbers

- difficulties in interpreting results

- difficulties reading graphs/charts

- difficulties understanding written numbers (in word rather than numerical format)

- finds it difficult to estimate or give approximate answers (this is often taught as the first stage in performing a calculation)

- unable to recognise that an answer is unreasonable

- paraphasic substitutions (where one number is substituted for another either when writing or using a calculator – the person may verbally say the correct number but push a totally different button).

Calculation related problems:

- problems aligning numbers in sums

- problems understanding what is meant by word based mathematical questions in a test or exam

- needs to use fingers to work out simple sums

- much slower to work out answers

- problems performing calculations

- problems remembering and applying formulae

- difficulties remembering what symbols such as '+', '-', or 'x' mean.

Time related problems:

- may have problems remembering appointment times

- may have difficulties in interpreting a 24 hour clock.

Day-to-day living:

- may have problems identifying clothes size
- may get confused between left and right
- problems handling money
- may have problems recognising faces as they are seen as a form of symbol recognition.

Positive attributes

As with all the other specific learning differences, individuals with dyscalculia will have personal strengths and tend to:

- excel in non mathematical subjects.

7

Overcoming difficulties: self help strategies and tips to support colleagues

Aims of this section

- To identify practical strategies that can be used by individuals to help overcome difficulties they may personally face.

- To suggest support mechanisms that can be introduced to help colleagues to achieve their potential.

The following section on self help strategies and tips to support colleagues has been divided up into specific areas of practice which anyone working as a nurse, whether student or qualified, or as a health care assistant or associate practitioner might need to be able to undertake. Clearly some activities are unique to certain roles but by covering the range commonly associated with registered nurse level it will help those looking to achieve this level to appreciate the complexity of the role and be able to prepare accordingly.

In reality there are large areas of overlap between the difficulties associated with dyslexia, dyspraxia and dyscalculia in the workplace. The suggested strategies are therefore grouped in relation to the area of difficulty, rather than the 'diagnosed condition'. It is hoped that this will allow individuals to select the strategies that best

help them in the workplace. Nursing is a complex activity however, and the areas of difficulty and suggested strategies will also no doubt overlap. To ensure completeness and facilitate the 'dip in and out' philosophy of this toolkit, areas of difficulty, and ways of tackling them, will be included in all relevant sections.

It is important to remember that every individual will have a unique profile, and that no individual will have difficulties in all of the areas listed. The key is for the individual to develop strategies to overcome their personal areas of difficulty. The majority of the suggestions included are at the level that would be considered a "reasonable adjustment". Where suggestions potentially exceed this they are highlighted as a strategy which would need to be discussed on an individual basis.

Finally there is a large body of evidence, including that by Lefly and Pennington (1991) and Miles (1993), which acknowledges how adults are often able to develop very successful coping strategies. However, it is also well documented that these may have only been developed up to a certain level and that, as the task becomes more complex, they may not be sufficient. It is therefore likely that individuals with dyslexia, dyspraxia or dyscalculia will need to continue to develop strategies throughout their professional life. Furthermore, while it is appropriate that we help and support student nurses, the NMC expects a qualified nurse to be capable of 'independent practice' and we must ensure that students are able to achieve this by the point of registration.

Difficulties with documentation

Nursing requires accurate and detailed documentation to the standard outlined in the NMC publication *Record keeping: guidance for nurses and midwives* (NMC,

2009). For many nurses with dyslexia, dyspraxia or dyscalculia this may create a particular challenge. Modern technology – a part of normal day-to-day life, has provided us all with access to spell and grammar check facilities when using computers. Student nurses with dyslexia or dyspraxia are also likely to have been provided with sophisticated software for their assignment writing, which may have masked certain areas of difficulty whilst in University. The challenge therefore is to find strategies to overcome areas of difficulty and be able to produce neat, fluent and professional hand written documentation where required. Documentation requires skills in reading, writing, spelling and organisation of ideas.

The following personal 'story' highlights how one health visitor had some problems with documentation, but how her employer successfully used access to work funding to help her to overcome the difficulties (there is more about access to work in Section 8 and the accompanying guide for managers and practitioners).

Personal stories

"I was called to see the lead nurse to discuss concerns around documentation issues. She asked me to write down the mistakes in some of my notes…. This helped her to understand my difficulties and want to help me as she had no concerns about my practice.

Following a meeting with managers, human resources and my union rep I was assessed by access to work – they recommended that I should audio tape my notes and have clerical support (10 hours per week) to type them up."

Reading documentation

In relation to reading documentation (notes and charts for example) some individuals may:

- read very slowly

- find that they need to re-read something several times to get the meaning

- find it hard to scan or skim read

- experience visual stress – this may cause text to appear distorted, particularly if reading black print on white paper

- find it difficult to read with background noise

- have difficulty reading medical terminology or drug names, particularly where there are other terms which look/sound similar

- find it difficult to read and interpret information on charts particularly where information is presented in different layers or there is a need to read across and up/down

- find it hard to work out readings on charts and may give an inaccurate reading without being aware of it

- have difficulties reading other peoples handwriting in medical notes, on drug charts and in nursing documentation.

Self help strategies

- Give yourself enough time to read things and re-read them if necessary.

- Use a small alphabetical notebook (or card system) to record difficult words and remind you of their meaning.

- Carry a list of common abbreviations and their meaning.

- Use an electronic dictionary to look up unfamiliar terms.

- Use a coloured overlay, if appropriate.

- Print things on cream/off white paper

- Set up your computer screen to use a coloured background (choose the colour that is best for you).

- If appropriate (in other words, if you have a personal copy) highlight key points to emphasise them.

Personal stories
Newly qualified staff nurse

"I have Meares Irlen syndrome where my eyes don't like reading black writing on a white background, it makes my eyes water and the words go blurry. I lose my place easily whilst reading and I feel tired after reading just a small amount… I got glasses with coloured lenses to combat this and it works… looks like I am wearing sunglasses though! "

Reading documentation

Strategies to help colleagues

- Allow extra time for reading.

- Present the individual with essential reading well in advance of meetings – highlighting important parts if appropriate.

- Provide opportunities to discuss reading.

- When producing word processed documents try to make it 'dyslexia friendly' in other words:

  – write in a logical sequence

  – avoid small print (use font size 12 or above)

  – use a dyslexia friendly font (for example arial, verdana, tahoma or lucinda sans are best)

  – use bullet points in preference to sentences where possible

  – use simple words/avoid overuse of jargon or uncommon words

  – do not justify the right hand margin – this makes the spaces between words uneven and harder to read if you are dyslexic

  – space the information so it is not cramped, use short paragraphs to break up dense text

  – where possible print documents on off white/cream paper.

Writing notes

In relation to writing notes and on charts and forms some individuals may find it difficult to:

- organise their thoughts coherently

- write in appropriate language

- use punctuation correctly

- write legibly

- write concisely

- spell correctly (see next section on spelling)

- chose the correct version of words such as there/their

- write under time pressure if their writing is very slow or they need to redraft their work

- identify numbers and in some cases get them in the right order

- fill in forms, especially when required to do so at speed.

Writing notes

Self help strategies

- Give yourself enough time to write up notes and other paperwork.

- Try and find somewhere quiet where you are less likely to be interrupted.

- Divide your ideas into sections and tackle one section at a time.

- Create a personal list of difficult words to check when required. (see section on spelling).

- Familiarise yourself with the layout of different forms and charts – ideally take home a blank copy to look at when you are less rushed.

- Devise 'templates' or checklists for different types of documentation, for example patient assessment, discharge summaries, letters.

- Use an electronic dictionary if possible.

- Develop effective checking procedures and proofreading skills.

- Use a laptop or PC to write notes on if one is available.

- If your writing looks messy – experiment with different types of pen (chunky/standard/slim) until you find one that helps.

- Consider using a handheld recording device to record your ideas verbally – you can then copy it into the notes but you don't have to think and write at the same time (this may need to be negotiated – see Section 8 on using equipment).

Writing notes

Strategies to help colleagues

- Allow colleagues enough time to write up their notes.

- Try not to disturb colleagues who you know need to really concentrate on their documentation.

- In the case of junior student nurses allow them to write a rough draft on scrap paper which you can check before they write it into the notes (remind them to destroy this carefully afterwards).

- Help students to devise a checklist of key areas to include in certain types of documentation.

- Consider devising a 'sample' or 'model' for different types of documentation, particularly for students or new staff, to show them the level and content expected.

- Allow colleagues to word process reports etc where possible

    - use bullet points in preference to sentences where possible

    - use simple words/avoid overuse of jargon or uncommon words

    - do not justify the right hand margin – this makes the spaces between words uneven and harder to read if you are dyslexic

    - space the information so it is not cramped, use short paragraphs to break up dense text

    - where possible print documents on off white/cream paper.

Spelling

In relation to spelling individuals may find it difficult to:

- spell certain words – these might not be difficult words, some individuals can spell these correctly but struggle with quite straightforward words

- spell medical terminology and drug names, particularly where there are words that sound or look very similar, for example gastrectomy and gastrostomy.

Spelling

Strategies to help colleagues

- Provide a list of common terminology in your area for new staff and students.

- Help colleagues to feel able to ask if there is a word they are uncertain about the spelling of.

Spelling

Self help strategies

- Keep a notebook containing the correct spelling of words that you need to use regularly. This could be divided into sections on drugs/medical terms.

- When you need to spell an unfamiliar word – check with a colleague or in a dictionary then add it to your list.

- Devise mnemonics (a rhyme or something) to help you remember difficult words.

- Write words that you are trying to learn on post it notes or small cards and stick them up around the house (by the kettle, fridge door, bathroom mirror) – the more you look at them the quicker you will learn them.

- Ask if you can have an electronic dictionary which copes with medical terminology (see Section 8 on using equipment).

Personal stories
Practice nurse

"The nurse talked about how invaluable the spell check facility on a word processor is, and how it had helped her through school and university... she went on to say how difficult it is now as she has no access to one at work."

Difficulties organising workload

Whilst most people are familiar with the spelling, reading and writing difficulties associated with some of the specific learning differences, they may be less aware of the organisational problems associated with all three conditions. These range from problems with 'working memory' and 'automaticity' which – although traditionally associated with dyslexia – may impact on the other conditions too, through to more straightforward 'time' related issues associated with dyscalculia.

Working memory is the term used to describe the temporary storage/processing facility which holds and manipulates information that is currently being used. It is a bit like the RAM on a computer and is used when we try to do tasks like listening, deciding what is important and then writing down the relevant information. Like a computer, its fine as long as we don't ask our working memory to do too much at once..... but when we do, there is the potential for the whole thing to 'crash'. The situation is compounded when we add in complications such as frequent distractions and background noise at the same time, factors that someone with dyslexia will find particularly difficult. It is also an area that becomes increasingly challenging as the level of expectation increases. Mentors often complain that a senior student is having problems organising their work, and query why it was not picked up earlier. The truth is that when the requirement was to 'organise' care for one or two patients the student could cope, but as they are expected to take responsibility for a more complex caseload the cracks start to appear.

The other challenge linked in particular to dyslexia, are problems associated with a lack of 'automaticity'. As the name implies this is about how we learn and ultimately internalise processes, until we can do them

sub-consciously. Driving a car is a classic example of this. When we first try to learn to drive the task seems overwhelming, with all the things that have to happen simultaneously to be a safe competent driver. If you ask an experienced driver how often they consciously think about all of those individual factors, it is not very often – as these have become automatic. We know that individuals with dyslexia will take longer to reach the point of automaticity but that once they get there they are as safe and competent as anyone else.

Although it is not easy to separate the complex range of processes involved in organising your workload, three key areas have been identified as potentially problematic namely remembering things, coping with distractions and managing time. It should also be noted that the opportunity to work in a well organised working environment will significantly help as is demonstrated in the following story.

Personal stories
Staff nurse with dyslexia

"The ideas promoted in the productive ward programme have helped, as a truly organised layout and work routine helps enormously."

Remembering things

In relation to remembering things some individuals may have difficulties with:

- remembering names of patients and colleagues
- remembering drug names or medical conditions
- learning routines or procedures
- following instructions
- remembering information to pass on to colleagues (from phone calls, conversations with patients or colleagues, observations etc)
- tasks that need to sequenced in a particular order, for example remembering to check the brakes on the bed before getting the patient out of bed
- ordering their ideas
- listening and taking notes simultaneously such as in handover or a lecture
- filing and looking up information alphabetically or sequentially
- multi tasking as this requires a good memory, time management skills as well as the ability to work sequentially and be organised.

Remembering things

Self help strategies

- Invent and use mnemonics.
- Use to do lists.
- Always carry something to write on and a pen.
- Write important things to remember on sticky post-it notes and put them in key places where you will see them frequently, for example fridge door, bathroom mirror.
- Use visual methods such as diagrams and mind maps to help you remember.
- Use flow diagrams where procedures need to be remembered in a particular order.
- Set realistic targets for example to learn 1 new drug every 2 days.
- Use auditory methods of learning – record information on a digital voice recorder (or mobile phone) and listen to it when you can for example when driving, walking the dog.
- Use a personal organiser (PDA or mobile phone) to set reminders for key tasks.
- Chunk difficult numbers into smaller chunks they are easier to remember that way. For example the RCN phone number (020 74093333) is much easier to learn if you start by remembering that all UK numbers start with a zero, then it is twenty, seventy four, oh nine, thirty three, thirty three.
- Use repetition; the more you repeat something the quicker you remember it.
- Use coloured pens and highlighters to help organise and prioritise.
- Devise prompt sheets for frequently encountered activities for example a routine pre op admission, the ABCDE assessment of a deteriorating patient.

Remembering things

Strategies to help colleagues

- Help a student/colleague to invent and use mnemonics.

- Encourage the individual to use 'to do' lists rather than trying to remember.

- Don't give too many instructions at once.

- Prepare printed 'handover sheets' covering core information – the individual can add to these but it will reduce the amount they need to write down and avoids things being missed.

- Make sure that there is always something to write on (and a pen) near the phone.

- Help a colleague to draw up a plan highlighting important tasks/deadlines.

- Set clear, measurable targets.

- Allow enough time for the person to grasp key information, try not to rush them.

- In the case of procedures allow the person a chance to practice (ideally as close as possible to when you explained it or demonstrated it).

- Explain things more than once if required.

- Where possible give instructions in written and verbal form (you could consider using a digital voice recorder to record sets of instructions).

- For students or new staff create an orientation pack for your area, outlining useful information and routines.

Note: an inability to cope with distractions/interruptions may be a difficulty which prevents an individual from being 'fit for practice'. Reasonable adjustments **must** be implemented where required, **following which** the individual needs to be able to **consistently** demonstrate the required level of competence.

Coping with distractions

In relation to coping with distractions some individuals may have:

- a short attention span and be easily distracted

- difficulty in discarding irrelevant or redundant information which can lead to overload and confusion

- difficulty in reacting quickly in a busy environment or during an emergency

- difficulty in balancing different commitments for example a student who needs to write an essay whilst on placement or a qualified nurse undertaking further study.

Managing time

In terms of managing time some individuals may find it difficult to:

- plan ahead or plan their work schedule

- estimate how much time is needed for a specific task

- be on time for appointments

- complete tasks on time

- read dates and times, particularly those using the 24 hour clock.

Coping with distractions

Self help strategies

- Be honest with colleagues, tell them you find interruptions difficult and ask them to avoid distracting you if possible.

- Be honest with yourself, some clinical areas are more prone to interruptions than others – choose where you work.

- Try to find a quiet area if you really need to concentrate on something like documentation – but tell people where you will be.

- Set realistic targets in terms of balancing different commitments for example when studying (pre or post registration). Aim to read 1 article per day, or write 250 words – it soon builds up.

Managing time

Self help strategies

- Use timers/alarms to remind you of set time deadlines eg when a patient needs to be ready for theatre.

- Keep a diary or wall planner to remind you of important dates (meetings/deadlines).

- Build up a list of how long certain procedures/tasks usually take (including preparation and clear up time) for example performing a bed bath 20-30 minutes, a simple dressing 20-30 minutes, a complex dressing 45-60 minutes (these are generous time allowances but it is better to allocate too much time than always be behind).

- Have a picture of a 24 and 12 hour clock to show the differences.

Coping with distractions

Strategies to help colleagues

- Allow colleagues quiet time where possible to complete tasks such as paperwork.

- Avoid interrupting a colleague if it is at all possible.

Managing time

Strategies to help colleagues

- Help colleagues to build up a list of how long things take to do.

- For students/new staff set achievable time related tasks, for example don't expect them to plan a whole day at first, start with a few hours/morning and build up.

- With students ask them to tell you what the key activities are at the beginning of the shift – remind them of things they have forgotten.

Personal stories
Student nurse with dyspraxia

"The student nurse was finding it difficult to fit a needle onto a syringe – her mentor gave her a set to practice with and after an evening practicing at home (away from scrutiny and time pressures) she had quickly mastered it."

Problems with psycho-motor skills

Demonstrating manual dexterity

The difficulties associated with the development of psychomotor skills are mainly attributable to problems with manual dexterity in the case of dyspraxia or to lack of automaticity, such as described in the previous section (difficulties organising workload).

Problems with manual dexterity may result in:

- problems handling equipment and instruments

- poor hand-eye co-ordination.

Demonstrating manual dexterity

Self help strategies

- Practice handling instruments and equipment – if possible ask if you can borrow a piece of equipment to practice (see personal story below).

- Investigate if other equipment is available which might be easier to use.

Demonstrating manual dexterity

Strategies to help colleagues

- Provide opportunities for practice.

- Explore availability of specialist/alternative equipment which might be easier to use (providing this could constitute a 'reasonable adjustment'.

Sequencing of tasks

Lack of automaticity may mean that the individual has problems:

- learning new routines and procedures

- sequencing the order of tasks correctly

- transferring learning into a new setting.

Sequencing of tasks

Self help strategies

- Invent and use mnemonics to help remembering sequences/routines such as ELIOT or TILE for moving and handling.

- Use visual methods such as diagrams and mind maps to help you remember.

- Use flow diagrams where procedures need to be remembered in a particular order.

- Use auditory methods of learning – record steps of procedures or other key information to listen to when you are doing other things (such as the ironing). For example, this could be used to help you learn the latest ratios for CPR or the equipment needed to remove sutures.

- Use repetition; the more you repeat something the quicker you remember it.

- Use coloured pens and highlighters to help you remember/organise your thoughts.

- Devise prompt sheets for frequently encountered activities, for example a routine pre op admission, the ABCDE assessment of a deteriorating patient – these can be added to/adapted if you move to a new area.

- Use reflection to help you to transfer previous learning into new settings.

Sequencing of tasks

Strategies to help colleagues

- Present information more than once and ideally in different formats

- Provide frequent opportunities for practice

- Help a student or colleague to invent and use mnemonics

- Encourage use of reflection to help individuals to transfer previous learning.

- Allow enough time for the person to grasp key information, try not to rush them.

- Create flow charts/protocols to help colleagues to learn procedures.

Difficulties with drug administration

This is one of the most controversial areas and is one of the main reasons for nurses to be referred to the Nursing and Midwifery Council for alleged 'lack of competence' (see Section 2).

It must be emphasised that there is no reason to automatically assume that a nurse will not be able to administer drugs safely as a result of their dyslexia or dyspraxia. However individuals do need to develop strategies to overcome any areas of difficulty they might experience. There is clear evidence to suggest that the vast majority are able to do this; furthermore as they frequently double or even triple check everything that they do in relation to drug administration it could be concluded that they are therefore perfectly safe.

The situation is more complex in the case of dyscalculia however. If an individual really has true dyscalculia, and therefore has no concept of numbers at all, it must be questionable as to whether they can calculate drug doses safely. However, as we saw in section 6, dyscalculia is frequently misdiagnosed, and is often used as a label for poor maths skills. It is therefore likely that there are nurses who believe that they are dyscalculic but who do have the necessary level of understanding to be able to calculate drug doses safely. For those with true dyscalculia the requirement by HEI's for GCSE Maths or level 2 numeracy to enter training, is likely to have deterred those with the most serious problems. Whilst this is unfortunate for the individuals concerned, the absolute safety requirement to be able to calculate drug doses and dispense drugs accurately is unequivocal.

This therefore leaves two potential areas of difficulty reading drug charts and calculating drug doses and it is therefore important that student nurses develop, and are assessed for competence during their training. This means allowing the student to read the drug chart, select the correct drug and dispense it under close supervision in accordance with National and local guidelines. Newly qualified staff often struggle in this area as they see it as a new skill to learn. Although they may have participated in drug administration as a student they have not always had sufficient opportunity to be the one selecting the drug from a crowded drug trolley or cupboard. It is only by doing this that significant areas of difficulty will be highlighted.

Reading drug charts

In terms of reading drug charts individuals may have problems:

- reading drug names especially where there are other drugs which look very similar

- finding the required drug in the trolley or cupboard

- interpreting abbreviations such as tds, bd, prn

- understanding the 24 hour clock

- working out time intervals between prn drugs

- dealing with 'conflicting instructions' for example paracetamol being allowed four hourly but with a maximum of four doses in 24 hours.

Reading drug charts

Self help strategies

- Learn the names for drugs that you frequently administer and what they do.

- Compile a list of drugs with similar names and find a way of clearly identifying the difference in spelling.

- Know how to use reference materials such as the BNF to look unfamiliar drugs up.

- Learn how to pronounce drug names – record the correct pronunciation on a digital voice recorded to listen to.

- Practice reading drug charts – as a student ask for a blank copy to study or do a specimen chart with your mentor with some common examples.

Reading drug charts

Strategies to help colleagues

- Provide students/new staff with a list of commonly used drugs for your area.

- If you use drugs with similar names in your area consider creating a visual aid to show the different drug names.

- Ensure that a BNF or alternative is available.

- Record drug names on a digital recorder (most students with dyslexia are supplied with one of these to use in lectures) to help the student learn how to pronounce them.

- In hospital settings – allow students to accompany you on a drug round and actually dispense the drugs according to their level of training (if you are concerned that this will take too long let them to do one patient's drugs to start with and build up until they can do a whole bay as they get quicker).

- In community settings – allow students to participate in drug administration as appropriate.

- Create a specimen drug chart that relates to your area for students to practice reading/interpreting – ideally give examples of stat, prn and regular drugs.

Calculating drug doses

In terms of calculating drug doses individuals may have problems:

- remembering the formula

- interpreting the formulae – knowing what to put where

- basic mathematical principles such as multiplication or division

- converting units if different units are used on the prescription and bottle/packet (ideally this is now being avoided but does still happen particularly out of hours)

- performing complex calculations, such as for children or in an ITU based on body weight.

Note: the following strategies are designed to be appropriate for individuals with dyslexia or dyspraxia who find drug calculations challenging. Where an individual has been formally diagnosed with dyscalculia specialist advice is required to devise an individualised and intensive programme of support.

Calculating drug doses

Self help strategies

- Carry a cue card around with you to remind you of the formulae.

- Look at one of the many books available to teach nurses a variety of types of calculation.

- Practice, practice, practice until you feel confident.

- Calculate your answer independently before checking with a colleague. If you don't agree bring in a third person – your colleague might have got it wrong not you.

- If your employer allows the use of calculators use one to check your answer (see note below).

- Consider enrolling on adult numeracy classes to brush up key skills.

Calculating drug doses

Strategies to help colleagues

- Allow the individual time to work it out at their own pace, don't rush them.

- Provide relevant clinical examples for practice, colleagues may struggle with abstract calculations.

- Help colleagues to feel open about asking for help/someone to check a complex calculation – it might take a little bit longer but it is better to be safe.

- Encourage a student or colleague to look at one of the many books available on nursing calculations – then if possible help guide them through structured teaching in small progressive steps.

- Teach rules and give concrete examples – it is much harder to grasp abstract concepts.

- If your employer allows the use of calculators encourage colleagues to use one to check their answer (see note below).

- In emergency situations where calculations need to be performed quickly and with lots of potential distractions allow a colleague to ask someone else to do it.

Personal stories
Clinical nurse specialist (reflecting on a placement whilst a student)

"I struggled to do the maths and the staff would deliberately avoid doing any drug calculations with me. I was capable of doing the calculations but I needed more time to complete them, which they did not seem prepared to give. Some staff were overtly rude, and I remember one senior staff nurse refusing to even do drugs with me because (as she shouted across the nurse's station) I was 'useless'."

Calculators – there are a lot of people who oppose the use of calculators when performing drug calculations as they feel an individual must be able to do it manually. Check if your trust has a policy, and if possible just use the calculator as a way of checking your answer.

Liaising with colleagues

The final area of potential difficulty to consider relates to our interactions with colleagues, both within our own profession and across the multi disciplinary team. While most individuals will have developed highly successful personal strategies, there may be occasions, particularly in a large group, where they feel 'exposed' and can become anxious or embarrassed. This could be on a ward round, during a case conference/discussion, part of a handover to colleagues, in a meeting or during a teaching session. The main areas that cause concern revolve around discussing clinical issues, reading aloud and writing in front of others.

Discussing clinical issues

In terms of discussing clinical issues individuals may have difficulties in:

- organising thoughts coherently
- pronouncing medical terminology
- understanding abbreviations.

Personal stories
Newly qualified staff nurse

"One bad thing I found was in handover and on handover sheets where people used abbreviations for procedures, illnesses etc. I found that an abbreviation on one ward means one thing and on another ward it means something different which is very confusing."

Discussing clinical issues

Self help strategies

- If possible jot down your ideas of what you want to say and use these as prompts or a checklist.

- Observe ward rounds/case conferences/handovers before you need to actively participate.

- Continue to build your awareness of medical terms and find out the correct pronunciation – get someone to tell you how it should be pronounced its much better than trying to work out pronunciation from a dictionary.

Discussing clinical issues

Strategies to help colleagues

- Try to create an environment which helps colleagues to feel comfortable – anxiety will only make problems worse.

- Don't let people draw attention to mispronounced words, even inadvertently.

- Try not to use abbreviations as some people find them difficult to interpret and they may mean different things to different people.

Reading aloud

Reading aloud may be difficult due to:

- problems pronouncing terminology
- a slow reading speed
- visual disturbances
- reluctance to use equipment, such as a coloured overlay, in front of others.

Reading aloud

Self help strategies

See also the Section on 'reading documentation'

- If you know you will need to read something aloud try to get a copy in advance to practice.
- If you can get an electronic copy (you might need to scan a hard copy) format it in a way that helps you, for example change the font style and size, create extra paragraph breaks to divide it up into smaller sections, or use bullet points.
- Use highlighters or coloured pens to draw attention to key areas.

Reading aloud

Strategies to help colleagues

- Do not ask someone with dyslexia to read aloud unless you have given them the material well in advance.

Writing in front of others

Writing in front of others might be difficult as a result of:

- spelling difficulties (particularly when writing on a vertical surface such as a whiteboard)
- problems organising ideas, particularly when required to listen and write things down such as during a 'brainstorming' session
- problems writing legibly
- a slow writing speed.

Writing in front of others

Self help strategies

- Probably the best strategy would be to try to avoid doing this wherever possible. The advantage in a group situation is that there are others who might be very happy to be the scribe or note taker.
- Provide typed minutes of meetings wherever possible.

Reading aloud

Strategies to help colleagues

- Do not put others on the spot. If someone appears reluctant to act as scribe or note taker, don't push them into it.

8

Using equipment to help you

In our increasingly technological world a great of equipment is currently available to assist individuals with a specific learning difference. However, for many the challenge is being fully aware of what is out there or maybe in gaining access to it.

There are also issues regarding the use of certain equipment in a clinical area or in a patient's own home, and permission will need to be obtained in advance. For example, the use of a digital voice recorder to record your own voice and ideas tends not to be a problem but colleagues might wish not to be recorded and this should be respected. Where recording devices are used care needs to be taken to ensure that confidentiality is maintained; the voice recorder (or alternative device) should not be left lying around and material should be erased as soon as it is possible.

While most staff are happy with the use of a voice recorder for personal use, the situation becomes more complex, and controversial, when an individual wishes to record a conversation with a patient or client such as during an admission interview. If there is a local policy this should be followed, although the trusts contacted in relation to this have all admitted that it is not an area they have considered and none have yet created any guidance for staff. Despite this, when queried employers have often expressed discomfort at the use of a voice recorder in this context, and there is a clear need for some guidance on this subject.

For most individuals their first exposure to the available technology is as a pre or post registration student. Most universities provide access to 'assistive technology' on-campus for students with a recognised disability; however, most students would like to be able to use the same technology, for personal use, at home or at work.

Funding for equipment

While it might seem strange to consider funding first, the reality is that a 'needs assessment' to determine what equipment an individual might benefit from, is a costly process. Therefore, in most cases it is necessary to secure funding right from the start. For the majority of people this takes place through the Disabled Student Allowance (DSA) and is secured when they are undertaking formal education. Students enrolled on a course which represents 50 per cent or more of a full-time degree programme are normally eligible for the DSA. However, qualified staff who wish to 'top up' a diploma to a degree would not be eligible, as they only require 120 credits – which represents a third of a degree.

For those who cannot access funds through the DSA there are two main options – to rely on the free version of certain types of software that are available, or to apply for funding through the access to work fund. There is more information regarding access to work funding available in the accompanying report. It should be noted however, that equipment and software provided through access to work does not belong to the individual and may only be available for use in the working environment and not at home. Furthermore, it would usually need to be returned when the employee moves job.

The following list highlights just some of the assistive technology that is currently available. As this is a constantly developing area it is likely that the list will quickly become out of date as more products come online. It should also be noted that not everything on this list can be funded under

the Disabled Student Allowance or through Access to Work.

Hardware available

- Computers – whether desktop, laptop or netbook.

- Digital voice recorders – can be used to record audio files which can then be uploaded into a computer (see also voice recognition software).

- Electronic dictionaries – standard or medical version.

- Mobile phone – particularly the new style smart phones.

- Personal Digital Assistant (PDA).

- Digital cameras – when used with appropriate software (see below) these can be used to take pictures of text, select an area and have it read back to you.

- Digital pens – used to highlight areas of text. Depending on the software used, individual words can then be explained or even synthesised into speech to aid pronunciation. Areas of scanned text can also be uploaded into a computer.

- Electronic note making devices such as Digiscribble or a tablet PC – these work with a digital pen and can be used to transfer a hand drawn mind-map into the computer.

Software available

- Note taking programmes such as Audio Notetaker (Iansyst) – help students to organise recordings from a digital voice recorder and add annotation.

- Reading programmes such as Texthelp Read and Write Gold, ClaroRead Plus or Kurzweil 3000 – read scanned or typed text out loud.

- Voice recognition software such as Dragon Naturally Speaking – allows the person to dictate notes into a computer. Some programmes also transcribe from a digital voice recorder, however as the software needs to be trained to recognise the individuals voice it does not always cope well with a variety of voices such as from lectures and meetings.

- Claroview – a coloured overlay feature for computer screens.

- Mind mapping software such as Inspiration, Mind Genius, Claro Mindfull, Spark Learner and Mind Manager – can be used to create mind-maps in a range of styles.

It should also be noted that commonly used software packages such as Microsoft Windows or Apple Mac offer the facility to change background colours and the appearance of the screen. Even straightforward procedures such as changing font size and style can make a dramatic difference.

Other equipment

- Coloured overlays – semi transparent tinted sheets used to reduced visual disturbances by placing them over a page of text.

- Tinted glasses – same principle as coloured overlays but in spectacle form.

Further information on many of these products is available through the links included in Section 9.

9

Sources of help and further advice

Dyslexia

The British Dyslexia Association
98 London Road, Reading. RG1 5AU

www.bda-dyslexia.org.uk

Dyslexia Action
Park House, Wick Road, Egham, Surrey.
TW20 0HH

www.dyslexia-inst.org.uk

The Helen Arkell Dyslexia Centre
Frensham, Farnham, Surrey. GU10 3BW

www.arkellcentre.org.uk

Independent Dyslexia Consultants
www.dyslexic-idc.org

**Professional Association of Teachers of
Students with Specific Learning
Differences (PATOSS)**
www.patoss-dyslexia.org

**Association of Dyslexia Specialists in
Higher Education (ADSHE)**
www.adshe.org.uk

The Dyslexia Teaching Centre
23 Kensington Square, London. W8 5HN

www.dyslexiateachingcentre.co.uk

The Dyslexia Unit
University of Wales Bangor, Bangor,
Gwynedd. LL57 2DG

www.dyslexia.bangor.ac.uk

Dyspraxia

The Dyspraxia Foundation
8 West Alley, Hitchen. SG5 1EG

www.dyspraxiafoundation.org.uk

Dyscalculia

The Dyscalculia Centre
www.dyscalculia.me.uk

General

www.equalities.gov.uk
Equality Act 2010 What do I need to know?
Disability quick start guide

iansyst Limited (assistive technology)
www.iansyst.co.uk

**Skill: National bureau for students with
disabilities**
www.skill.org.uk

Equality and Human Rights Commission
www.equalityhumanrights.com

Employers Forum on Disability
www.efd.org.uk

**Access to work: Information for employers
leaflet**
www.jobcentreplus.gov.uk

NHS Employers

www.nhsemployers.org

Royal College of Nursing: diversity and equality

www.rcn.org/support/diversity

The British Psychological Society

(to obtain a list of chartered psychologists who can undertake a formal assessment for a SpLD)

www.bps.org.uk

Association of Educational Psychologists

(to obtain a list of educational psychologists who can undertake a formal assessment for a SpLD)

www.aep.org.uk

Other useful resources

Loughborough University: Dyscalculia and Dyslexia Interest Group (DDIG)

A collaborative group, originally set up by staff from Loughborough University, Coventry University and De Montfort University, providing advice and support in relation to mathematical problems associated with dyscalculia or dyslexia.

www.ddig.lboro.ac.uk

University of Nottingham School of Nursing, Midwifery and Physiotherapy

Offers a resource known as RLO – Reusable Learning Objects – related to a range of topics. These provide a multi sensory approach to learning which often benefits those with a SpLD; there are two RLO on the topic of dyslexia.

www.nottingham.ac.uk

University of Southampton Dyslexia Services

The booklet Supporting students with dyslexia in practice placements (on which this toolkit was modelled) is available for download, as is a the useful booklet Dyslexia in the workplace which can be accessed through a link on the left hand menu.

www.southampton.ac.uk

University of Worcester Institute of Health and Society

Offers a link on its nursing course pages (Dip HS or BSc or Graduate Diploma) to an advice booklet which has been written by a student nurse for students with dyslexia on clinical placements.

www.worcester.ac.uk

Assistive technology

Digiscribble

www.scanningpensco.uk

ClaroRead and Write, ClaroView, Screen Ruler

www.clarsoftware.com

Dragon Naturally Speaking

www.nuance.com

EndNote Bibliographical Software

(organises reference lists)

www.adeptscience.com

Inspiration

www.inspiration.com

Kurweil Reader

www.sightandsound.co.uk

Mind Manager
www.mindjet.com.uk

Mindgenius
www.mindgenius.com

Reading Pen and Oxford Dictionary
www.wizcom.com

Spark Learner
http://spark-space.com/

TextHelp Read and Write Gold
www.texthelp.com

Free versions of software

Some manufactures offer free versions of assistive technology software. These are usually a more basic format than those commercially available and they may therefore lack some of the advanced functionality. Nevertheless they are extremely useful and offer a valuable resource to those unable to secure funding. The following websites offer a range of assistive technology programmes – just follow the onscreen links or menus to access those that will help with identified areas of difficulty.

www.abilitynet.org.uk/atwork-resources

www.techdis.ac.uk/getfreesoftware

10

Useful reading

Note: all the publications referenced in this toolkit represent useful reading and are therefore included here and in the reference list.

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