Understanding of Special Educational Needs Terms by Student Teachers and Student Paediatric Nurses (Draft Pre-Print Only)

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Abstract

The Every Child Matters initiative has placed an increasing emphasis on inter-agency working in respect of the care and development of children. This is of particular relevance when considering the needs of children with special educational needs (SEN). Teachers and healthcare professionals are two groups who need to have a clear understanding of the meaning and implications of diagnostic terms used in relation to SEN. This study reports on an evaluation of this understanding in two cohorts of student teachers and student nurses. Results indicate that whilst for certain conditions, both cohorts had a reasonable level of understanding of both the meaning and implications for practice of these terms, for other conditions student nurses had high levels of uncertainty. For both cohorts, where positive responses were given, these were often of a general nature and lacking in specificity. Recommendations are made for an increase in focus on special educational needs education by initial training providers in both disciplines.

Key Words: Special Educational Needs, Initial Teacher Training, Paediatric Nursing, Nurse Education

Background and Literature Review

In the context of the developing international trend towards an inclusion model, there has been increasing concern in recent years about how best to train student teachers to deal with issues related to Special Educational Needs (SEN) in the classroom. There has been some debate as to whether training makes teachers more effective inclusive practitioners. Although much of the literature supports this idea, there is typically an implicit view that professional development which promotes an overall positive disposition and attitude towards inclusion is far more important than specific
knowledge about specific conditions (see for example Leatherman and Neimeyer 2005, Monaho and Morino 1996). Others, however, have disputed this and there is increasing evidence to indicate that particularly for some impairments, the level of understanding about those conditions and what implications they can have for teaching strategies makes a significant difference to the effectiveness of the teacher in meeting the needs of those children (e.g. Osler 2002).

As well as the trend towards inclusion, there have also been significant policy moves in some countries, such as the UK and USA (Wilker, White and Kinder 2003) towards promoting improved inter agency working. The impetus for this is based, as with inclusion to some extent, on a move away from a medical model of children’s needs towards a social model. If in the social model it is posited that the environment needs to be adjusted to fit the needs of the child (Oliver 1990, Booth and Ainscow 2002 ), it makes sense to look at that environment in a holistic sense. For example, in the UK, “Every Child Matters” (DfES 2003) has required all services working with children to consider the ways in which they promote inter-agency working. This is nowhere more important that in the Health and Education services. The adults working in schools are those who are in contact with most children for the majority of their waking hours, and the strong relationships that they build with the children in their care means that they are a central repository of information about the wellbeing of children. In the UK, Schools have well developed systems for identifying children with special educational needs, which can include general and specific learning difficulties, as well as children with emotional and behavioural difficulties. Of course, children’s needs that are manifest in schools can be linked to family and home circumstances, as well as to physical and mental health issues.

Education and Health

Health services interact with children and schools in a number of ways. Medical services and nursing services typically provide a visiting service to schools in their local LEA. Some larger secondary schools have a permanent nurse on site. The school nurse can play a particularly important role in identifying health and related concerns for children at risk of harm or neglect (Mazyck 2007). Outpatient and inpatient paediatric services also deal with a range of children’s needs, including their educational requirements, and again, medical and nursing staff in these services are
involved in identifying the needs of children beyond just that of the presenting medical issue.

Research Questions
Nursing and teaching staff dealing with children are, then, both required to consider the wider needs of the children in their care. In respect of special educational needs, it is important that

a) professionals in both areas have adequate training in the types of special educational need that children can present with
b) a shared understanding of common terms that are employed in classifying special educational needs, such as dyslexia, dyspraxia, Asperger’s Syndrome, Attention Deficit Disorder and Attention Deficit and Hyperactivity Disorder.

For example, a child may have been identified as having Asperger’s Syndrome in their educational setting. If they are then being treated, for example, on an inpatient unit for an unrelated medical issue, it is important that nursing staff in that unit have a shared understanding of the meaning of this diagnosis. If the school nurse is involved in making decisions on, for example, further medical referral, it is similarly important that she also has a shared understanding of what this means. However, the ways in which professionals interpret the meaning of a diagnosis goes beyond immediate semantic definition. Their use of it in the course of their professional activities also indicates the broader meaning that it holds for them. For example, children with specific diagnoses may organized in to ability groups in the classroom in a specific way, which indicates the professional’s wider conceptualization of the meaning of the term in an educational context. Specific diagnostic terms may also be conceptualized in a particular way by professionals in health settings, influencing how they approach their work with the child. These broader conceptualizations related to specific diagnostic terms may or may not be congruent between the two groups of professionals. For example, previous research focusing on serving teachers and serving GPs (Kirby, Davies and Bryant (2005)) has indicated that there can be considerable variations in the level of understanding about the meaning of diagnostic terms related to special educational needs. The research carried out here investigates
whether similar differences exist between student teachers and student paediatric nurses. Thus the research questions were:

a) What understanding do student teacher and paediatric student nurses have of diagnostic terms related to special educational needs? Are there divergences in the level of understanding between the two groups?

b) How do student teachers and student paediatric nurses use these terms in their work setting? When presented with a child with a specific diagnosis, how does this influence the way in which they work with the child?

Methodology
The student teachers were drawn from an opportunity sample of students undertaking a one year Post Graduate Certificate of Education. The student body is diverse and includes significant numbers of students from black and minority ethnic communities. Students attend a series of lectures in Professional Studies which includes input on special needs and inclusion. Students were asked to complete a questionnaire towards the end of their course, when they had completed nearly all lectures, including those specifically on SEN, and their first teaching placement.

The student paediatric nurses were drawn from an opportunity sample of two cohorts undertaking a three year undergraduate course in Paediatric Nursing. Again, the student body for this course has a similarly diverse intake. The first cohort (Nurse Cohort A) were in the second year of the course and competed the questionnaire after their first work placement and the second cohort (Nurse Cohort B) were in the third year and coming towards their final work placement. Some input on special educational needs is included in the course content in Year 2, which students in both cohorts would have attended. For both the student teachers and the student paediatric nurses, they were asked to complete the questionnaire during scheduled course teaching sessions.

The Questionnaire consisted of two parts. The first asked the students to indicate, in no more than five sentences, their definition of the following terms: Dyspraxia, Dyslexia, Asperger’s Syndrome and Attention Deficit Hyperactivity Disorder. The questionnaire specified that if they were unsure of the definition then they should
write “Unsure”. The second part, relating to the same four terms, asked the students to indicate, again briefly, how they would approach working with that child. The question prompt for each term was presented in the form:

“If a child had a diagnosis of dyspraxia, what would you do differently when working with them?”

Finally, the questionnaire asked students to indicate if they had spent time working in a school before undertaking the course and to give a brief description of this. The student nurses had spent variable amounts of time on placement at a school as part of the course, as this depended on where their particular allocation for work placement, but no student had spent more than four weeks on such a placement. All student teachers completing the questionnaire were known to have completed seven weeks on school placement as part of the course at the point of completing the questionnaire. 117 student nurses and 90 student teachers completed the questionnaire.

Results

Time Spent in School Before Starting the Course
Responses to this question were categorized into short (less than 2 weeks), medium (between three weeks and six months) and long (over six months) periods spent in school. There was little variation between the student nurses and student teachers in terms of the distribution of time periods spent in school across the cohorts before starting the course.

Approach to analysis of main question responses
The responses to the main questions in the questionnaire were analysed using a category analysis approach (Carley 1990). Categories for the responses were initially developed from the literature review and previous experience. For both sets of responses, during the pilot study codes were further developed from the initial set of categories using an interactive approach, and new categories were added as required. Due to the complexity of the written responses given by students in the questionnaire, responses could be mapped to more than one coding category.
For example,
This response for the meaning of the term Asperger’s Syndrome:

*lack of social interaction. Unable to interpret an expresion. Can not understand human/jokes/*
*Fixated on one topic*

was mapped to the coding category IMPAIR and to the coding category RESTRICT, as indicated in Table 1.

The initial category analysis indicated that there was very little variation in the category distributions between Nurse Cohorts A and B across all the questions on the questionnaire. As a result it was decided to treat Nurse Cohort A and Nurse Cohort B as a single data set for the purposes of comparison of their responses to those of the student teachers. This lack of variation was perhaps not that surprising given that both Cohorts had had relatively little course teaching on Special Educational Needs.

Understanding of Diagnostic Terms
Kirby, Davies and Bryant (2005) take a highly definitional approach in considering the responses given by the teachers and GPs in their sample. For example, they spend a significant amount of time considering the differences in DSM-IV criteria between dyspraxia and DCD (Developmental co-ordination disorder), whereby the definition of the former includes functional planning and organizational difficulties. I question, however, the utility of engaging in such definitional acrobatics for both educators and health professionals, particularly as the authors give little attention to the underlying uncertainties, for example in respect of possible common aetiologies and variations in the application of category markers, that lie behind the DSM-IV criteria. Thus a number of authors (see Henderson and Barnett (1998) for DCD/Dyspraxia and Wing (2005) for Asperger’s/Higher Functioning Autism) have critiqued the process of categorization in DSM-IV and other definitional schemas. Thus I employ a more realistic expectation of the type of knowledge that practitioners could usefully have about these terms, considering the typical range of factors included in the broad spectrum groups of these disorders. That is not to suggest, of course, that there is nothing to be gained in making distinctions between groups based on DSM-IV
criteria, but that we must more clearly identify the benefits for practitioners in differentiating between them.

Asperger’s Syndrome
As Table 1 shows, the most common response categorization overall indicated an understanding of Asperger’s Syndrome as implying an impairment in social interaction, social communication and/or lack of understanding of emotions in other people. The second most common response categorization indicated an understanding of Asperger’s Syndrome as a form of autism (without any detailed elaboration of the meaning of this). Other responses linked Asperger’s to restricted or obsessional interests, rigid routines, lack of eye contact, or sensitivity to stimuli. The range of responses did correspond in broad terms to diagnostic factors that are present within the spectrum of autistic disorders of which Asperger’s Syndrome forms a part (Wing 2003).

Comparing student teacher and student nurse responses, it is clear that significantly more student nurses were unsure about what was meant by the term Asperger’s Syndrome. In fact, 4% of the student nurse response categorizations indicated an explicit confusion between Asperger’s Syndrome and other distinct conditions, as in the following responses:

unsure but think its related to downs syndrome

it is a kind of down’s syndrome

disability to your motor system. Unable to carry on normal tasks
<table>
<thead>
<tr>
<th>Coding Category</th>
<th>Code</th>
<th>Student Teachers (number of categorizations=141)</th>
<th>Student Nurses (number of categorizations = 136)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impaired social interaction/social communication/ lack of understanding of emotions</td>
<td>IMPAIR</td>
<td>26</td>
<td>13</td>
</tr>
<tr>
<td>A form of autism</td>
<td>AUTIS</td>
<td>27</td>
<td>16</td>
</tr>
<tr>
<td>A form of severe autism</td>
<td>SEVERE</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Higher Functioning Autism</td>
<td>HFA</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Unable to filter out stimuli, sensivity to stimuli</td>
<td>FILTER</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Lack of eye contact</td>
<td>EYE</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Repetitious actions</td>
<td>REPET</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Knowing lots about one thing, restricted interests, focus on facts, obsession on one area</td>
<td>RESTRICT</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Taking things literally</td>
<td>LIT</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Rigid Routines</td>
<td>RIGID</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Advanced skills / very high intelligence in one area</td>
<td></td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Problems with motor skills or speech skills</td>
<td>MOTOR</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>General problems with behaviour including lack of concentration/attention</td>
<td>GEN</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Confused with another condition eg Downs</td>
<td>CONF</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Unsure</td>
<td>UNSURE</td>
<td>21</td>
<td>54</td>
</tr>
</tbody>
</table>

(Figures in the columns are percentages of all categorizations for the whole cohort)
Dyspraxia

Again, as Table 2 indicates, an even higher proportion of student nurses were unsure of the meaning of dyspraxia, but there were also differences in the pattern of responses within those giving a response that indicated some level of understanding. For example, 19% of response categorizations by student teachers indicated an understanding of dyspraxia as relating to motor difficulties and/or motor impairment, as compared to only 1% of student nurse response categorizations.

The most common response categorization category overall indicated an understanding of Dyspraxia as implying a lack of coordination. Other responses linked Dyspraxia to information processing difficulties, problems with writing and problems with spatial awareness. Again, apart from responses associating the term with poor muscle tone, the range of responses did correspond in broad terms to diagnostic factors that are present within dyspraxia and related conditions (Portwood 1999). Interestingly, across the cohorts a number of students gave responses that indicated a confusion of the meaning of the term dyspraxia with other distinct conditions, including dyslexia, dyscalculia and language delay.

For example:
From a student nurse:

*Unsure but I know it's the same lines as dyslexia but I think it's more to do with numbers*

And from a student teacher:

*Difficulty with identification of number*

This finding echoed those of the GP and teacher study by Kirby et al, where there was also a level of conflation between dyslexia and dyspraxia by GPs and some teachers.
### Table 2 Meaning of Dyspraxia

<table>
<thead>
<tr>
<th>Coding Category</th>
<th>Code</th>
<th>Student Teachers (n=118)</th>
<th>Student Nurses (n=121)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack Coordination/Poor Coordination</td>
<td>LCORD</td>
<td>36</td>
<td>8</td>
</tr>
<tr>
<td>Motor Difficulties/Impairment</td>
<td>MOTOR</td>
<td>19</td>
<td>1</td>
</tr>
<tr>
<td>Poor Muscle Tone</td>
<td>MUSC</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Clumsy Behaviour/Bumping into Things</td>
<td>CLUMS</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Problems with Spatial Awareness</td>
<td>SPATIAL</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Problems with Planning, Information Processing and concentration</td>
<td>INFODIFF</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Problems with Writing</td>
<td>WRITEDIFF</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Confused with Dyeslexia/Dyscalculia/Language Delay</td>
<td>CONF</td>
<td>9</td>
<td>13</td>
</tr>
<tr>
<td>Loose definition as behavioural issue</td>
<td>LOOSDEF</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Unsure</td>
<td>UNSURE</td>
<td>10</td>
<td>66</td>
</tr>
</tbody>
</table>

*Figures in the columns are percentages of all categorizations for the whole cohort*

**ADHD**

The number of student nurse responses indicating that those respondents were unsure of a definition (9% of student nurses as compared to 3% of the student teachers) was far less than was the case for Asperger’s Syndrome and Dyspraxia. There was also a greater level of agreement of the meaning of the term between the two groups. Thus 75% of student teacher response categorizations and 79% of student nurse response categorizations indicated an understanding of ADHD as implying impairment in ability to concentrate, impairment in ability to give attention, or hyperactivity (either in a general sense or with more specific references to excessive energy, lack of bodily control or fidgeting).
For example,

From a student nurse:

*a child struggles to concentrate over a long spam. Is very hyperactive which can appear as naughty behaviour*

Here, the respondent indicates, by their use of the word “appear” of both the potentially involuntary nature of the condition and the need for practitioners to interpret the associated behaviours.

From a student teacher:

*Children often display inability to sitting still during cerpet time, fidgeting displaying hyper active behaviours*

Other responses conceptualized ADHD as a general (but unspecified) behaviour problem (8% student teacher response categorizations, 3% student nurse response categorizations), or as a set of behaviours implying a need for attention (5% student teacher response categorizations, 4% student nurse response categorizations). Again, the range of responses corresponded in broad terms to the diagnostic factors associated with ADD and ADHD (Du Paul 2003).
Dyslexia

As for ADHD, the number of student nurse responses indicating that those respondents were unsure of a definition (9% of student nurses, 1% of the student teachers) was far less than was the case for Asperger’s Syndrome and Dyspraxia. The most common categorization overall indicated an understanding of dyslexia as implying difficulties with reading, writing or spelling (49% of student teacher and 47% of student nurse response categorizations).

A number of responses across all the cohorts also indicated an understanding of dyslexia as being associated with letter reversals and “word jumbling”.

For example,

From a student nurse:

*when a person has difficulty reading words. They seem mixed up when you look at words.*

From a student teacher:

*words/letters unable to line up - back to front. Letters jumping around on paper. Mixes up letters*

The incidence of this categorization of response was, however, markedly more prevalent for student teachers (30% of response categorizations) than for student nurses (12% of response categorizations). This suggests that a greater number of student teachers had a more specific conceptualization of how difficulties with reading, writing and spelling can be expressed in learning situations.

Other responses conceptualized dyslexia as a problem with information processing, sequencing or concentration. A small number of responses (3% for both student teacher and student nurse response categorizations) referred to a neurological deficit or brain related impairment. Perhaps surprisingly, very few in any of the cohorts including the student teachers used the term “specific learning difficulties”.

A number of responses referred to difficulties with dealing with numbers. This included 8% of student nurse and 6% of student teacher response categorizations.
Although there are ongoing debates as to the shared aetiological basis of dyscalculia and dyslexia and their comorbidity (e.g. Tressoldi, Rosati, Lucangeli 2007), a significant number of experienced practitioners would be likely to view these conditions as linked in some way, as is evidenced by frequent references to their comorbidity in particular in a number of key reference texts (see for example Thomson 2001).

Cross-Analysis by time spent in schools
An analysis of the category responses for each cohort based on the time that they had spent in school both before and after starting the course was undertaken. This showed little variation in the pattern of responses based on time in school. This is, though, perhaps not surprising, as most of the student teachers (>78%) and student nurses (>85%) had not spent more than 7 weeks in total in schools.

Use of Terms in Work Setting

The responses to the next set of questions were analyzed using the same approach as for the analysis of the diagnostic terms. Thus the responses to the question, “If a child had a diagnosis of Asperger’s Syndrome, what would you do differently when working with them?”. were used to derive the categories indicated in Table 3. In line with the significant number of student nurses who were unsure of the meaning of the term Asperger’s Syndrome, 62% of the student nurse response categorizations indicated that they were unsure what they would do differently with a child with this condition, as compared to 25% of the student teachers. Where a positive response was given, the most common strategies referred to were helping or promoting social skills, avoiding the use of metaphorical language or giving specific instructions.

For example,

From a student nurse:

*Get them to focus on social aspects in life. Involve them with other peers, encouraging them to talk about themselves in a positive manner.*
From a student teacher:

*try to get them to work in group activities to develop communication and discuss their emotions*

Both these responses are of a general nature, with little attention to specifics. Thus, neither respondent considers in detail how they might go about getting the children to work on social skills and relationships apart from just providing opportunities for social engagement. This is typical of most of the responses in the sample across the various categories. Indeed a number of responses (13% of student teacher and 8% of student nurse response categorizations) referred to general strategies with no specific application to Asperger’s Syndrome, such as having more resources. However, the majority of strategies that were suggested were typical of those that would be regarded by experienced practitioners as appropriate for consideration for use with children on the autistic spectrum (Bogdashina 2006). Thus only 2% of student teacher and 5% of student nurse response categorizations indicated the use of strategies clearly appropriate to other distinct conditions apart from Asperger’s Syndrome. Interestingly, though, only 1% of student teacher and none of the student nurse response categorizations referred to the exploitation of special interests in working with children with Asperger’s Syndrome. This is despite the fact that many practitioner guides (for example see Sainsbury 2000 and Pyles 2002) explicitly recommend this as a potential strategy.
<table>
<thead>
<tr>
<th>Coding Category</th>
<th>Code</th>
<th>Student Teachers (n=127)</th>
<th>Student Nurses (n=99)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoide use metaphorical language/ Give specific instructions</td>
<td>NOMETAPH</td>
<td>13</td>
<td>4</td>
</tr>
<tr>
<td>More detailed or more simplified explanations including explain things one thing at a time</td>
<td>EXPLAN</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Keep to routine / avoid changes / be consistent</td>
<td>ROUT</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>Help/promote with social/emotional skills</td>
<td>SOCIAL</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>General strategies to help and asst general development in classroom e.g. more resources or more time for tasks</td>
<td>GEN</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>Accommodate special interests</td>
<td>ACCOMM</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>One to one support</td>
<td>ONE</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Respect physical space</td>
<td>PHYS</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Avoid eye contact</td>
<td>AVEYE</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Reduce stimulation levels</td>
<td>STIM</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Use visual approaches</td>
<td>VIS</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>
Dyspraxia, ADHD, Dyslexia

In common with the responses for Asperger’s, it was also the case for the other conditions that where positive responses were given (i.e. respondents were not unsure), the broad range of responses were typical of those likely to be considered by experienced practitioners. For dyspraxia, the most common categorizations were reducing the use of tasks that involved writing and of using activities that will foster the development of fine and gross motor skills. However, again in line with the significant number of student nurses who were unsure of the meaning of the term Dyspraxia, 67% of the student nurse response categorizations indicated that they were unsure what they would do differently with a child with this condition, as compared to 9% of the student teachers. Thus for both Asperger’s Syndrome and Dyspraxia, a majority of student nurses were unsure of how they would approach working with a child with these conditions. This is in marked contrast to responses for ADHD and Dyslexia, where again in line with responses to the meaning of the terms, student nurses were better able to suggest strategies for working with children with these conditions, as shown in Table 4.

| Strategies based on confusion re condition eg hyperactivity, attention span | CONF | 2 | 5 |
| Read up on this condition / seek advice | READ | 3 | 3 |
| Unsure | UNSURE | 25 | 62 |

( Figures in the columns are percentages of all categorizations for the whole cohort)

Table 4 Student Response Categorizations of “Unsure”

<table>
<thead>
<tr>
<th></th>
<th>Student Teachers</th>
<th>Student Nurses</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADHD</td>
<td>8%</td>
<td>18%</td>
</tr>
<tr>
<td>Dyslexia</td>
<td>8%</td>
<td>7%</td>
</tr>
</tbody>
</table>

For ADHD, the most common response categorizations were providing a calm environment, focusing on kinaesthetic or hands on activities, or providing activities of
short durations interspersed with lots of breaks. There were though some significant variations in the distribution of the response categorizations between the two cohorts, as shown in Table 5.

**Table 5 Dealing with ADHD in Work Context - selected response categorizations**

<table>
<thead>
<tr>
<th></th>
<th>Student Teachers (n=147)</th>
<th>Student Nurses (n=156)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide a calm environment</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Focus on Kinaesthetic activities</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>Activities with short duration / lots of breaks</td>
<td>25</td>
<td>13</td>
</tr>
</tbody>
</table>

*(Figures in the columns are percentages of all categorizations for the whole cohort)*

For dyslexia, there was a marked similarity in the distribution of response categorizations between the two cohorts, as shown in Table 6. As this shows, the most common response categorizations were providing general support with reading, writing and spelling; giving more time with reading/writing tasks and/or allowing children to work at their own pace; giving specific support with reading/writing strategies such as chunking or the use of word banks or writing frames.

**Table 6 Dealing with Dyslexia in Work Context - selected response categorizations (percentage all categorizations across each cohort)**

<table>
<thead>
<tr>
<th></th>
<th>Student Teachers (n=123)</th>
<th>Student Nurses (n=174)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Support with reading, writing and spelling</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>More time with reading/writing tasks</td>
<td>21</td>
<td>23</td>
</tr>
<tr>
<td>Specific support with reading/writing strategies</td>
<td>15</td>
<td>11</td>
</tr>
</tbody>
</table>

*(Figures in the columns are percentages of all categorizations for the whole cohort)*
In common with the broad pattern across all the data, many of the student nurse and student teacher responses, although broadly in line with those likely to be suggested by experienced practitioners, were often lacking in detail and specificity as shown in the following examples for dyslexia (categorized as General Support with reading, writing and spelling):

From a student nurse:

Encourage them to read and write

From a student teacher:

differentiated lesson plans particularly in literacy.

There were, though, more isolated instances where responses were more detailed and specific as in the following examples (categorized as Specific support with reading/writing strategies):

From a student teacher:

work on common spelling patterns with them. Ensure they can build words up phonetically. Need to understand the sounds that letters can make

From a student nurse:

Give them a laptop with a spellchecker on it. Give them handouts and notes for each lesson.

Conclusions
There has been a sense of dissatisfaction with how issues related to special educational needs are included within initial teacher training courses for some time. Garner (1996a) considered the levels of dissatisfaction with training provider teaching in this area and (1996b) the lack of relative emphasis to special educational needs given by training providers. Later studies by Pearson (2005) and Mintz (2007) have
indicated that although some improvements may have been made in recent years, there is still a significant level of heterogeneity in the levels of understanding of student teachers about special educational needs in the UK. This small scale study has indicated that the cohort of primary student teachers in question have a relatively good grasp of both the meaning of common diagnostic terms of relevance to their work as classroom practitioners, and of the range of possible strategies that they could employ with children with these diagnoses. It is clear, however, that this understanding is often quite general in nature, and that their understanding of possible teaching strategies often lacked specificity and detail. One could argue that this suggests that training providers need to consider ways in which they can develop a more detailed understanding of particular conditions and how they might specifically be approached in the classroom. Yet given the relatively small exposure that these students had had to direct instruction on special educational needs or to time in the classroom, their overall level of understanding is quite encouraging. In fact, one could argue that this level of understanding is all that could reasonably be expected for a nine month post graduate initial teacher training course. Clearly, however, a general level of understanding of the meaning of SEN terms is not going to be sufficient for graduates of these courses when they are in post in the classroom. If, however, as the data suggests, it may be difficult to achieve the required level of understanding in initial teacher training, we perhaps need to look to ongoing continuing professional development as a way of supporting teachers in developing their professional knowledge in this area. There is an increasing emphasis in the UK and elsewhere on encouraging teachers to undertake post qualification study in as structured way. Thus the Department for Children, Schools and Families has recently announced their intention to provide a framework for all new teachers in England and Wales to gain a masters level qualification in education in their first five years of teaching (DCSF, 2008). The results of this small scale study suggest that a focus on special educational needs, both in terms of the meaning of terms and strategies for dealing with particular conditions in the classroom, could usefully form a part of the curriculum of such master’s level study.

Very few if any studies have looked at student nurse understanding of special educational needs, so it is difficult to look at trends or to make comparisons to other cohorts. This study has, however, shown that again for two conditions – Dyslexia and ADHD, student nurses have comparable levels of understanding to those of student
teachers. Again, given the limited amount of instruction received by the cohort this is also encouraging. Of course, this needs to be contrasted with the significant levels of uncertainty in regards of Asperger’s Syndrome and Dyspraxia. The variation in the level of understanding with regards to these common diagnostic terms was unexpected. Although it is not possible within the terms of this study to give any definitive explanation for this variation, it could possibly be related to differential levels of general public awareness about the different terms. Further research, involving additional interviews with students focusing on the source of their understanding of particular terms could shed further light on this discrepancy. It would also be potentially fruitful to undertake a larger scale survey of a number of teacher and student nurse training centres, considering with such a larger sample the relationship between level of course input on SEN and the levels of student understanding of diagnostic terms.

Certainly though, paediatric nurses working in a variety of settings are likely to come across children with these conditions. An understanding of the meaning of these diagnostic categories will be important for them in working directly with these children. Further, increased inter-agency working in the UK in the light of the Every Child Matters initiative makes it increasingly important for practitioners across a range of disciplines to be able to communicate with staff in schools using a shared set of parameters. Clearly then this study suggests the possibility that providers of paediatric nurse education need to consider the focus of their course structure in relation to special educational needs. One route to achieving this that could be considered, perhaps jointly by providers of both health and education training, would be to look at post qualification courses on SEN for practitioners from a range of fields. A limited number of UK institutions have, in the context of the Every Child Matters framework, started to offer such courses (e.g. Edge Hill University 2008) where health, education and social care professionals come together to jointly explore and develop their understanding of children’s needs. Given the need, made explicit in this paper, for such professionals to have a shared joint understanding of the meaning and implications of diagnostic terms, such a multi-disciplinary training approach would be an excellent way of achieving such mutual shared knowledge between practitioner groups.
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