The Dyslexic Doctor: Equipping Dyslexic Medical Students with Techniques for Success in Clinical Practice

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Dyslexia and medicine

• Medicine has numerous dyslexic doctors who were/are at the top of their profession

Harvey Cushing (1869-1939), neurosurgeon 'Father of modern neurosurgery'

Prof Terence Ryan, dermatologist from the University of Oxford

"....leader and innovator because he could recognize disease patterns that his medical colleagues could not easily see" (West, 2004)

Prof Beryl Benacerraf, radiologist at Harvard Medical School

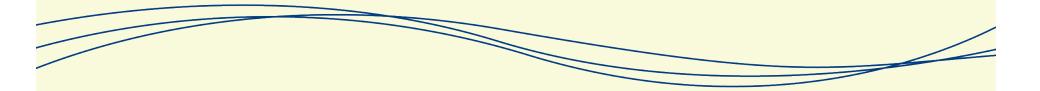
"Because of dyslexia, my brain works differently, and I can see these patterns. I do have a gift that other people don't have, and I will always stay ahead of the crowd and see more in an image than other people." (http://dyslexia.yale.edu/)

Dyslexia and medicine

- Medicine has numerous dyslexic doctors who were/are at the top of their profession
- Dyslexics often have talents and attributes that could make them outstanding doctors
 - Visual-spatial awareness
 - Problem solving skills
 - Communication skills
- Medical Schools frequently report higher numbers of dyslexic students than other undergraduate courses (e.g. M^cKendree & Snowling, 2011)
- High levels of post-enrolment diagnostic assessments amongst students has been attributed to naturally developed coping strategies breaking down under the stress of studying medicine (Walters & Croen, 1993)

Dyslexia and medicine

- Dyslexic medical students can struggle with certain aspects of their training
 - Reading, writing and spelling
 - Processing information
 - Organisation and time management
 - Numeracy (dyscalculia)
- Reasonable adjustments in academic study place dyslexic students on a level playing field with other students
- Need to ensure that professional competence standards to practice are achieved by <u>all</u> students and that patients are not being put at risk
- It is relatively easy to teach 'coping strategies' that ensure dyslexic medical students become the best, and the safest, doctors they can be



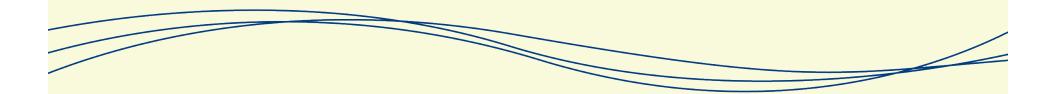
Coping strategies and clinical practice

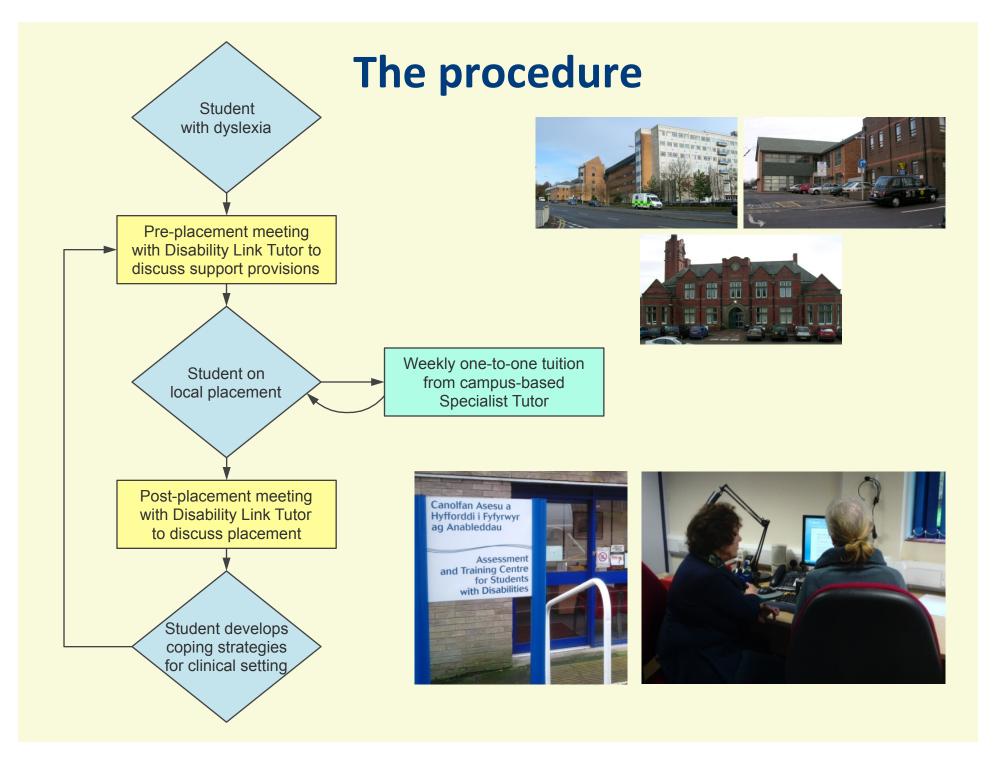
• University Student Support Services often tutor dyslexic students in techniques useful for academic success (Pavey *et al.,* 2010)



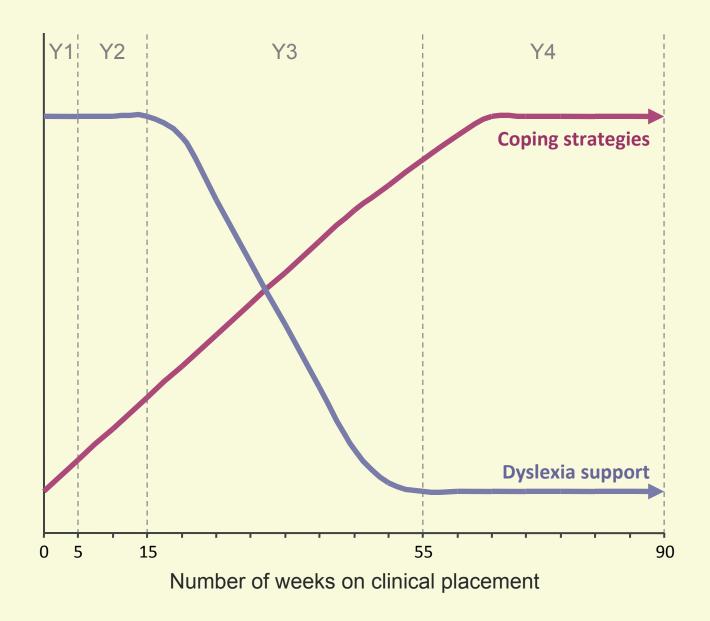
• Few Medical Schools report the use of specialist tutors to help students learn coping strategies for clinical placements and their future careers

Our aim was to design a procedure to enable dyslexic students to develop effective coping strategies for dealing with patients in the clinical setting

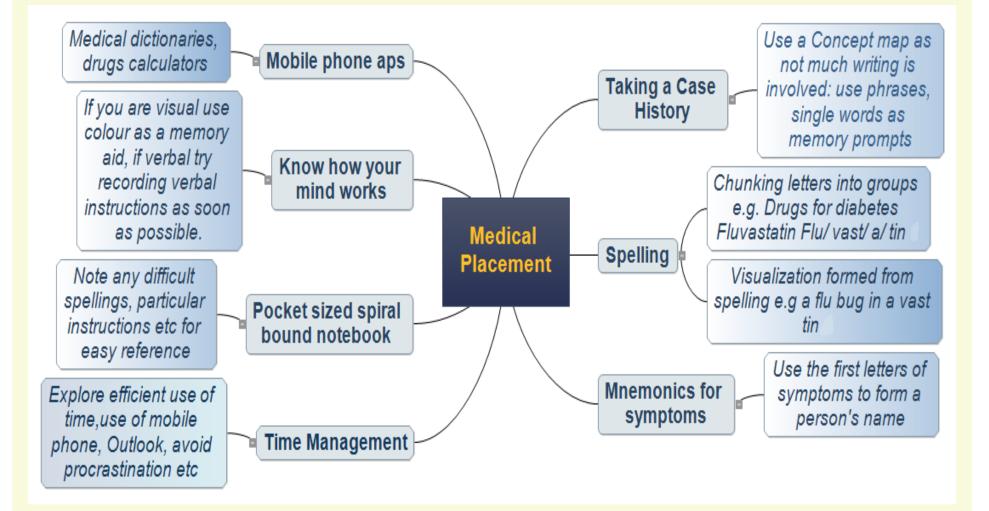




Coping strategies and time



What sort of strategies are taught?

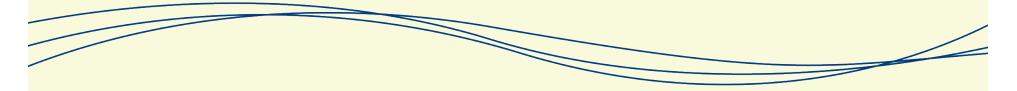


Elements of diagram in Pavey et al., 2010

Does the procedure work?

Benefits

- Accommodates the fact that individuals who experience dyslexia vary markedly in their clinical difficulties
- Provides a supportive environment that encourages students to reflect on their dyslexia in relation to their clinical experiences
- Students feel supported and encouraged to be open about their dyslexia throughout the entire process
- Students gain confidence in their own abilities in coping with the demands of clinical training
- Effective support likely to improve resilience (Dyrbye *et al*, 2010) and lead to academic success (Tinto, 2000)



Does the procedure work?

Drawbacks

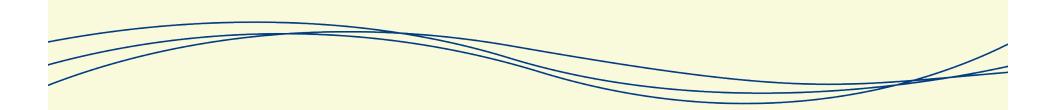
• Even with small student numbers, a labour intensive process for the Disability Link Tutor

Involve Personal Tutors and/or Clinical Mentors in the system

- Reliant on a student engaging with the system
 - Personal Tutors and/or Clinical Mentors could encourage
 engagement. Greater involvement of our P&P subcommittee in making recommendations to students
- Doesn't work so well for a student that is assessed in year 3 or 4
 - Investigate ways of incorporating standard tutoring techniques
 into our curriculum in early years

The future

- Work with students in interviews/ focus groups to ascertain if there are any clinical components dyslexic students more commonly struggle with
- Shadow or observe students in the clinical setting, to give us a better idea of the day-to-day working of a variety of clinical settings
- Setting up a dyslexia support group, to give students the opportunity to share experiences and ideas with fellow dyslexics
- Introduce stress reducing techniques for all students. This hopefully with allow natural coping strategies to prevail and enhance the effectiveness of techniques taught in the specialist tutor sessions



What do our students say?

".... The support from Student Support Services, in particular the Disability Office, has been extensive. It includes one-on-one tutorials to improve my learning strategies

From my experience I do not feel disadvantaged: in fact I feel as if people have gone out of their way to help me. The teaching team have been fantastic and always offered their full support if needed.

I would encourage all enrolling students to declare any disability so that the School can ensure the support is available for each individual at the start of their studies."

Excerpt from passage written by dyslexic student for GEM prospectus

References

Dyrbye LN et al (2010) Medical Education, 44:1016-26.

McKendree J and Snowling MJ (2011) Medical Education, 45: 176–182.

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West TG (2004) Thinking Like Einstein: Returning to Our Visual Roots with the Emerging Revolution in Computer Information Visualization, pp. 45-51, Prometheus Books. Amherst, NY

