Doctors with dyslexia: a systematic review of effective workarounds

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Context
An increasing number of medical students are declaring dyslexia as a specific learning difficulty on entry to medical school. The implication of an increasing number of doctors with dyslexia is that it may impact on their performance in the workplace and consequently on patient safety and fitness to practice.

For educators, an awareness of the impact of dyslexia on learners in the clinical workplace is vital:
1. to identify whether dyslexia may underlie certain traits and behaviours; and
2. to provide appropriate advice and support when dyslexia is identified.

Aim
A systematic search and narrative review of studies meeting the inclusion criteria literature was undertaken1. The review focused on studies based on primary research evidence to identify evidence concerning the effects of dyslexia on doctors (in or post training) in the workplace, and adaptive strategies ("workarounds") in use. This review is part of a larger study to undertake primary research with doctors with dyslexia.

Methods
• A protocol to guide the search was drawn up to define the search and the quality of the results to be evaluated.
• Exclusion criteria defined (pre 2002; grey; literature not about doctors/nurses)
• Search of databases (e.g. Medline, ASSIA, Pubmed, Web of Science, SSI, CINAHL and conference abstracts)
• Adoption of typological approach to assessing papers i.e. appropriateness of different types of study design for addressing different types of research questions
• Two stage process to sifting references: Titles and abstracts; and relevant articles retrieved and critically appraised according to the a prior research question and methodological rigour of the studies.

Results
The review identified five studies on dyslexia and qualified clinicians2-4,6,7,8,9. The impact of dyslexia can include:
• writing or taking notes in a clinical context (eg patient notes, referral letters);
• processing information (eg on ward rounds, handovers);
• distinguishing between similar drug names; and
• recalling patient or colleague names.

Adaptive strategies or ‘workarounds’ highlighted are:
• use of adaptive technologies to minimise the effects of dyslexia, such as voice activated software, spell checkers, use of handheld devices
• practical strategies: colour coding paperwork; rehearsal of difficult tasks; distinguishing between similar drug names; and recalling patient or colleague names.

Discussion
There is little research on evidence-based strategies to cope with dyslexia with what there is deriving mainly from the nursing literature.

Existing studies are quite old and consequently some of the strategies suggested, in particular those concerning assistive technology, have developed significantly and in ways not anticipated at the time of the research.

Future areas of research could consider: the practical strategies or ‘workarounds’ used by doctors and other clinical staff in the workplace to provide an evidence base for those supporting clinicians with dyslexia; the effect of dyslexia on specialty career choice.

Existing research tends to be small-scale (3 to 8 participants) and short term, with the exception of one longitudinal study9. There is scope to develop projects that are longitudinal and follow participants across different clinical contexts.

Conclusion
The difficulties associated with dyslexia are varied and may be unexpected. Medical educators may not be aware or knowledgeable about dyslexia and its impact, thus there is a need for promoting greater awareness and understanding of the implications for patient safety.

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