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Original Article

Experiences of Medical Students with Dyslexia in a Post-COVID-19 Curriculum

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Abstract

Background: Dyslexia in medical school is a common condition. With the COVID-19 pandemic, the medical school curriculum has changed. This might lead to differing experiences faced by dyslexic medical students compared to previous literature. **AIM:** This paper explores the experiences of medical students with dyslexia post-COVID-19, specifically on study methods, support, and attitudes towards their diagnosis. **Methods:** A qualitative study involving online interviews of five medical students with a formal dyslexia diagnosis was done. Data was collected over two months, from February to March 2023. Transcripts were analysed using an iterative constant comparative approach, forming themes on the experiences of these medical students. **Results:** Participants experienced a general need to work harder than their peers in certain areas of medical school, especially about traditional learning methods. However, participants highlighted strengths in visual and kinaesthetic learning. They viewed dyslexia as an advantage in areas such as pattern recognition and creative problem-solving, emphasising the concept of neurodiversity. COVID-19 delayed diagnosis and support services but fostered flexible, asynchronous learning that participants found beneficial. While participants valued support such as extra time, they highlighted the need for more inclusive teaching methods. They were more open to disclosure of dyslexia but expressed stigma still exists. **Conclusion:** This study examined the experiences of dyslexic medical students in the UK, uncovering their unique challenges and strengths. While COVID-19 prompted beneficial changes, stigma remains a barrier. We advocate for greater dyslexia awareness, rethinking curriculum design to improve accessibility, and embracing innovative teaching methods to support diverse learners.

Introduction

The term 'dyslexia' was coined in 1887 by Rudolph Berlin, a German ophthalmologist.1 Since then, the definition of dyslexia has been debated extensively. Dyslexia has traditionally been associated with disability and disadvantage.[2,3] The conventional perception of dyslexia characterises it as a condition marked by reading, spelling, and writing challenges, without affecting one's intelligence.[2,4,5] Further reports show that dyslexia also encompasses difficulties in retaining information, sequencing tasks, organising workload, verbal expression, and emotional factors such as self-esteem and anxiety.[4,6]

However, dyslexia is also linked to positive traits such as design, problem-solving, creative, interactive, and oral skills.[6,7] Individuals with dyslexia have also rejected the negative connotations associated with dyslexia, embracing more positive constructions and integrated aspects of their identity. [2,8,9] This shift has contributed to more people viewing dyslexia through a neurodivergent lens rather than solely as a medical disorder.[10]

In the context of medical education, completing a medical degree requires both academic and clinical practice. This requires a high level of commitment and dedication.[4] This has led dyslexic medical students to have their unique perspectives, strengths and weaknesses.

Medical students with dyslexia often take longer to complete written work and struggle to process information quickly, hindering their performance in lectures and assessments.[4,11] Moreover, dyslexia poses challenges in single-best answer (SBA) and multiple choice question (MCQ) examinations due to the need to process significant amounts of information quickly, straining working memory, and in written exams due to poor handwriting.[4,12] Stigma and reluctance to disclose a dyslexia diagnosis are significant issues. Romberg et al. identified stigma from clinical colleagues as a barrier, and Shaw and Anderson found that dyslexic students face bullying, stigma, and a lack of support.[11,13]

To manage this, dyslexic medical students employ innovative study strategies, including visually appealing materials, varied learning styles, and technology like screen readers.[4] Additionally, providing support, such as extra time during examinations, has proven crucial in enabling dyslexic medical students to perform on par with their peers.[14] Apart from study skills and extra time, United Kingdom (UK) universities do offer dyslexia support

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services and peer support societies, which include one-to-one pastoral care and general organisation for students with dyslexia. These have shown marked improvements in the psychological well-being of people with dyslexia.[15]

Similar issues exist in the nursing profession, where dyslexic student nurses report stigma and the need for additional time in clinical activities.16 Correspondingly, Ridley identified similar issues and underscored the significance of early dyslexia diagnosis in facilitating the learning process for student nurses.17 In navigating their professional roles, dyslexic nurses have adopted various strategies, utilising technology, using visually distinctive aids, building support networks, and setting aside quiet time for documentation.[16,18,19]

The impact of COVID-19 on dyslexic students includes positive outcomes, such as enhanced autonomy during remote learning, and negative ones, such as reduced clinical exposure and concerns about academic rankings.[20] Common themes emerge across healthcare fields, including anxiety about dyslexia disclosure, task difficulties, and coping methods.

The need for more research

The landscape of medical education has undergone substantial changes due to the impact of COVID-19, affecting all students, including those with dyslexia.[20,21] These changes have led to diverse experiences and challenges in their academic lives.

Given the evolving nature of medical education post-COVID-19, this study explores the lived experiences of dyslexic medical students, focusing on their study methods, access to support, and attitudes toward their diagnosis. Unlike previous research, this study gathers data during a period when students had resumed in-person classes and placements, navigating transitions influenced by the pandemic. By identifying effective support mechanisms and advocating for inclusive educational practices, this research aims to inform the development of evidence-based policies and resources that enhance learning outcomes and professional success for dyslexic students. Ultimately, these findings aspire to foster greater diversity and inclusivity in medical education, contributing to a healthcare workforce better equipped to address diverse patient needs.

This study will adopt the British Dyslexia Association's definition of dyslexia alongside the neurodiversity perspective as the conceptual framework.[6,10] By applying the neurodiversity paradigm, we aim to investigate both the unique strengths and challenges faced by dyslexic students during this transformative period.

Methods

The study is a single-centred qualitative study in the United Kingdom (UK) involving a thematic analysis of medical students' experiences with dyslexia in medical school through an interpretivism lens. Five students were interviewed, and their responses were analysed thematically.

Data Collection

The qualitative study involved interviews with dyslexic medical students, adopting a semi-structured format to facilitate in-depth exploration.[22] Interviews were carried out from February to March 2023 via Microsoft Teams, recorded and initially transcribed using Teams software, then manually transcribed verbatim.

The primary investigator, DT, conducted interviews. Before the interviews, participants were informed of the interviewer's status as a dyslexic medical student, which empathic understanding and encouraged open sharing of experience.[20]

- Interviews were conducted in a loosely structured fashion, with initial topic guides being iteratively using DT's insider experiences. An iterative approach based on Srivastava and Hopwood's framework guided subsequent interviews.[23] Transcripts were preliminarily coded, with insights from initial interviews shaping topic guides, questions, and probes for subsequent interviews, continuing until the final interview. Topic guide explored experiences about: Thoughts towards diagnosis of dyslexia, experience in medical school, Study Methods, and the impact of COVID-19.

Inclusion/ Exclusion Criteria

Participants had to meet all the following inclusion criteria to be eligible:

- Were medical students with a formal diagnosis of dyslexia
- Be in years 1–5 of their medical degree in preclinical and clinical years. These included students intercalating at the medical school, given they had studied at the medical school leading up to their intercalation.

Ethical Approval

This study was granted full ethical approval by the medical school in which the study was conducted. Approval Ref. IPREC221207.TAN

Recruitment

Recruitment was done from February 1 to March 31, 2023, through posters plastered on the bulletin boards and the university library. An electronic copy of the posters was also disseminated to the different year group chats on WhatsApp. These posters included study information and QR codes linked to an expression of interest form, collecting essential details like name, contact information, and year of study to allow the researcher to facilitate interviews.

Additionally, snowball sampling encouraged interviewed students to recruit acquaintances with dyslexia. The recruitment process is outlined in ***Figure 1.***

All interviewees received information sheets and consent forms before the interviews. Before conducting the interviews, they

were asked to confirm their willingness to participate. They were advised that they could withdraw consent within 28 days of the interview, and their data would be removed from the study.

Analysis And Synthesis of Evidence

Interview data were transcribed by DT using Microsoft Teams before being manually transcribed verbatim.

The data was then analysed using the thematic analysis framework approach as described by Braun and Clarke.[24] Analysis was influenced by the Iterative Comparative Approach by Srivastava and Hopwood.[23] The first interview transcript was read multiple times, and initial ideas were noted. Relevant codes relating to the study aim were identified and labelled with a descriptive code. Codes were then grouped into themes. Reflection of these themes on the research question was done, and the principal investigator used these reflections to alter the topic guides and questions for the following interview. This process was repeated for all interviews. After all the interviews were completed, a final round of thematic analysis was done. The project supervisor, MHB, reviewed the data and the analysis and checked and challenged them to ensure the findings were substantiated.

Coding was first performed using the NVivo software, which helped organise the preliminary ideas and codes. The codes were later reorganised manually into a Word document, where analysis was done in point form before being translated to the main manuscript.

The analysis was inductive and iterative, with themes evolving from the data. Selective extracts served as evidence for the study's findings. All identifiable information from the final report was redacted.

Results

A total of five medical students were interviewed. ***Table 1*** shows background information of the participants relating to their diagnosis of dyslexia and their duration in medical school at the time of diagnosis. An overview of themes and subthemes is presented in ***Table 2.***

A different approach to studying

Coping with traditional learning

Participants mentioned some difficulty in reading, processing and memorising that they might have compared to their peers. This has led to some of them feeling not only a sense of fear and inferiority but also working even harder than their peers to stay on par with them.

> P2: 'I just feel like I'm not as good as the people around me.'

> P3: 'But also like just like workload with medicine, just like talking about how it felt like it takes me longer to learn'.

Due to difficulties faced with traditional learning, students mentioned finding other ways to circumvent lengthy texts and notes. The methods used included using other sensory styles, such as auditory or visual.

> P5: 'I try to summarise the essential points and apply those by watching videos on YouTube.'

> P1: 'What I do is a lot of reciting verbally.'

> P5: 'I make colourful notes onto like a mind map'.

Table 1. Background of Participants.

Interviewee Identified	Current Year	Years In Medical School	Duration Since Diagnosis	Diagnosed in Medical School? Y/N
P1	2	2	>10 Years	N
P2	4	4	2 months	Y
P3	Intercalating	4	1 Year	Y
P4	1	2	1 Year	Y
P5	5	5	4 Years	Y

Table 2. Themes and Subthemes.

Themes	Subthemes
A different approach in studying	Coping with traditional learning
	From disability to neurodiversity
Attitude towards dyslexia	Sense of achievement
	Labels and disclosure
Impact of COVID-19	Delayed diagnosis and support
	Improved work environment
	Support

From Disability to Neurodiversity

While students take more time to learn, some feel more empowered in medicine's visual and kinaesthetic aspects. One example cited was spotter exams, an assessment that requires students to interpret visual artefacts about anatomy, histology and pathology. Students noted that they found themselves better visual learners and felt advantageous in these aspects.

Others felt more confident during clinical settings, particularly during Objective Structured Clinical Examinations (OSCEs) and clinical placements than traditional learning.

> P2: 'I feel confident in clinical settings... If I'm feeling insecure, it's usually while I'm learning content, but not so much in clinical or OSCE settings.'

> P3: 'I'm quite good at pattern recognition stuff. I like pictures, diagrams and coming up with a diagnosis.'

> P4:'(Dyslexia is) a bit of an advantage with histology, spotter and anatomy'.

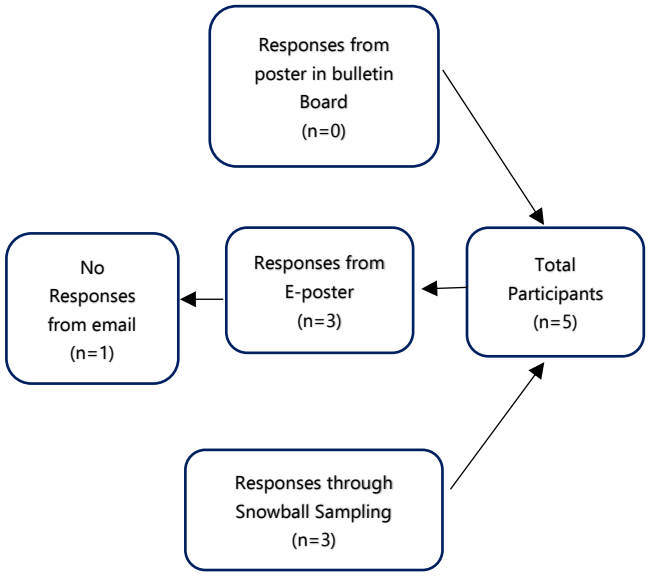
In addition, two students, P3 and P4, explored the concept of neurodiversity. Both held an optimistic view that having doctors

with dyslexia could add value to the medical field due to the unique strengths and way of thinking dyslexic students have.

> P3: 'dyslexia enables one to think about different solutions. I think it's a good thing with medicine because it's ever-changing as a field, and you want people who think differently'

> P4: 'I really prefer linking dyslexia with someone who is neurodiverse because if there is one area that you struggle with, there is (another) area that you are better at'.

Figure 1. Recruitment Process.



Attitude Towards Dyslexia

Sense of Achievement

Some participants diagnosed in medical school found their diagnosis upsetting, mentioning it to be a flaw due to their initial perceptions of dyslexia as a disability. Others discovered their diagnosis as a gateway for academic support, such as extra time. The initial negative feelings mentioned were generally short-lasting. Some of the interviewees mentioned a sense of accomplishment with the diagnosis, feeling like they managed to achieve much despite having dyslexia.

> P4: '...At the time, I thought oh my gosh, I can't be perfect. There's something wrong with me... However, after processing this ordeal... I got this far through life, so it's something I am proud of.'

> P1: 'When you accomplish something, you could say, 'I've done this, and it's more difficult for other people to do.''

> P2: 'I was quite upset at first... But at the same time, I was quite proud that I've managed to come so far without the diagnosis and the extra time.'

Labels and Disclosure

Some of the students believed society had a stigma towards dyslexia. Different interviewees mentioned multiple instances of the word 'label' regarding dyslexia. While some participants understood the 'advantages' of dyslexia, they felt that society distinguished dyslexia by only its negatives.

> P5: 'I didn't apply for (extra time) in the first year... because of the stigma.'

However, there was more openness to disclosing dyslexia. Interviewees were generally comfortable disclosing their diagnosis in the UK if they needed support in a clinical setting. While there might be some initial hesitance, they mentioned not feeling animosity or heavy judgment from peers and supervisors.

> P3: 'If I needed more support, then definitely, but If I were okay, then I wouldn't say anything.'

> P4 also mentioned how it is important to educate medical students and staff about dyslexia, remove such stigma, and get others to understand that there are advantages to this condition.

Impact of COVID-19

Delayed Diagnosis and Support

One detriment of COVID-19 was the delayed diagnosis and support for students with dyslexia. This was due to delays in or suspension of certain University services during the pandemic.

> P2: 'I was going to get screened in my first year.... when I came back after COVID, I had just forgotten about it.'

> P3: 'I think definitely (diagnosed) earlier. I think I would have struggled with my end of years in first year and then would have been asked to do it anyway generally.'

In addition, P5 mentioned the delay in using support such as the University dyslexia services during COVID-19.

> P5: 'I only used the benefits of having a (dyslexia service) tutor from the next year onwards.'

Improved Work Environment

Students generally found the post-COVID-19 environment to be conducive to their learning. There was unanimous mention of increased asynchronous learning through pre-recorded lectures, leading to increased flexibility in their education.

> P3: 'Lectures were all pre-recorded, so I could go at my own pace. I had like a good amount of time to catch up on first-year stuff.'

Synchronous learning, such as online tutorials, also tapped into polling software and quizzes, where the anonymity of these platforms enabled dyslexic students to participate more proactively in lectures, reducing the fear of judgement.

P1: also mentioned that COVID-19 catalysed different innovative approaches to teaching. This may help dyslexic students tap into new learning strategies apart from traditional methods.

P2: Some tutorials used Mentimeter… there is more time to think of an answer and I will not be judged for the wrong answer.

P5: 'COVID-19 sure has increased our use of technology… Students with dyslexia can try new things like VR or AI in the future.'

Support

Without support, participants still feel disadvantaged compared to their peers. However, there was a general consensus that they could perform on par with others with the appropriate support. Such support included extra time and guided facilitation by professional staff from the school's dyslexia and disability service. However, there were still mentions that more could be done. One example included improving teaching resources to make it more dyslexia friendly.

P2: '…certain measures can be put into place to keep you at the same level as everyone else.'

P4: 'I feel like certain lecturers could change their teaching styles or change their slides to make them a lot more dyslexia friendly, like using diagrams, using a lot more pictures… not making slides overly wordy.'

Discussion

This study explores the unique difficulties and strengths experienced by dyslexic medical students. Dyslexic students spend more time on learning tasks, finding traditional methods less effective. However, they exhibit notable strengths in clinical settings, leveraging hands-on experiences and inherent skills. The study also highlights various adaptive strategies, including technology and visual aids, facilitating their learning. The impact of COVID-19 and the shift to e-learning has further influenced their study habits, revealing both challenges and benefits. Additionally, the importance of tailored support and increased awareness within medical schools is underscored, advocating for a neurodiversity approach to dyslexia.[3,8,9]

Difficulties and Srengths Associated with Dyslexia in Medical School

The study's outcomes are consistent with previous research, affirming that dyslexic medical students require more time learning and doing tasks than their peers,[4,16] and acknowledging the necessity of dedicating more time to study activities, particularly reading, writing, and information processing. This finding echoes Shaw's study that traditional methods, including in-person lectures and traditional textbooks, are found ineffective by dyslexic medical school students.[20]

The study revealed that dyslexic medical students exhibited strength and comfort in clinical placements, mentioning communication skills as a strength. Musto's study touched on how dyslexic doctors viewed empathy and communication as strengths in clinical settings.[4] However, prior research mentioned difficulties in healthcare professionals with dyslexia, which participants did not bring up, such as difficulty in organisation, extensive reading, and time management.[4,16] A potential explanation could be that participants, being students, were shielded from time-pressured clinical responsibilities that working doctors and nurses experience, potentially contributing to the lack of observed difficulties. Therefore, while clinical settings might benefit students in terms of hands-on learning and communication with patients and colleagues, there might be difficulties when they have to do many tasks quickly.

Specific assessments, such as visual-based evaluations like the spotter exam, emerged as areas where dyslexic students felt advantaged, aligning with their inherent strengths. Notably, the performance of one interviewee in the abstract reasoning section of the UKCAT exam (a national medical school entrance exam) illustrates how dyslexic advantages such as global abstract reasoning and spatial skills, dynamic reasoning, and inventiveness can play a role.[25]

Study Strategies

The findings showed diverse strategies adopted by dyslexic medical students to address their academic challenges. Participants gravitated toward summarised note-taking, incorporation of diagrams, and recitation, approaches corroborated by prior research.[16,18,26] Surprisingly, despite the controversy surrounding the efficacy of coloured overlays and papers, participants opted for colourful notes enhanced with drawings and coloured pens to foster a visually engaging learning experience.[27] This aligns with the principle of employing colour to enhance engagement and organisation. [28,20]

The study also emphasised the uses of technology in aiding dyslexic medical students. Participants employed various technological tools to supplement traditional learning methods, echoing the coping strategies noted by Musto, and Shaw and Anderson.[4,20] Locke et al. also highlight technology's significance in supporting dyslexic healthcare professionals through spell-checkers, colour-coded indexes, and calculation aids.[18]

COVID-19 and E-learning

Generally, the students in this study enjoyed the asynchronous aspect of learning during COVID-19, allowing them to go at their own pace. This corroborates with the findings of Shaw and Anderson, emphasising the potential benefits of transitioning to technology-driven and remote learning, particularly pertinent during the COVID-19 pandemic.[20] Our participants reported reduced stress and appreciated the advantage of personalised pacing in remote learning settings. On the other hand, ' Zawadka et al. highlighted increased stress due to the novelty of online learning at the early pandemic stages.[21] Therefore, while COVID-19 may have been difficult for dyslexic students to adapt initially, they ultimately benefited from its flexibility.

In addition to flexibility, COVID-19 may have extended the learning modalities in medical education. COVID-19 has led to using new distant learning modalities, such as extended reality technology, e-learning tools, and simulation facilities.[30] This has improved blended learning in medical schools, where online learning materials are combined with traditional place-based classroom teaching. With blended teaching being supported for continuation in the post-COVID-19 period, medical students with dyslexia can enjoy a more extensive plethora of learning modalities that venture out of traditional teaching frameworks.[31]

One detriment of COVID-19 was the lack of support for dyslexic students initially. Participants in the study had delays in diagnosis and support at the start of the pandemic. Similarly, medical education experienced postponement of clinical rotation and medical exams during the pandemic.[31] Shaw et al. mention dyslexic medical students having feelings of anxiety at the start of the pandemic, especially when medical schools were transitioning towards distanced learning.[20] Therefore, while the pandemic was largely positive for dyslexic medical students, there may be struggles in the early stages of the pandemic.

Support and Education

The interviews made it clear that while participants believed they could perform as well as their peers with adequate support, more could be done. However, they felt that most of the support currently given to them was mainly through extra time. Shaw et al.'s research highlights dyslexic students perform comparably with extended time.[14] However, the study emphasises addressing the extra study efforts dyslexic students invest in and creating dyslexia-friendly resources. Using high-contrast colours, clear backgrounds, non-italics, and bolding could enhance support.[32] Additionally, considering essay deadline extensions could alleviate dyslexic medical students' stress.

Interestingly, regarding labels and disclosure, this study found that students exhibit more willingness to disclose dyslexia compared to prior research.[11,12] Echoing Morris and Turnbull, students concur on seeking help when needed.16 However, an overarching observation is the prevailing lack of awareness about dyslexia in medical schools. Findings from this work also support Macdonald's findings, highlighting public misconceptions and Hennesy et al.'s finding of varying knowledge about dyslexia among non-dyslexic medical students.[2,33] As such, there is a benefit in educating medical faculty members and medical students on dyslexia to improve inclusivity and stigma.

The study showcases dyslexia's positive facets, including enhanced creativity and lateral thinking.6 Encouraging the 'neurodiversity' concept over framing dyslexia as a 'disability,' as Lambert and Harriss discuss, could reshape perceptions.34 This shift underscores unique strengths and challenges tied to dyslexia, countering a purely negative view. Ultimately, this shift could lead to a more favourable stance toward dyslexic medical professionals.

Strengths and Limitations of Study

In this study, we aim to qualitatively explore the experiences of dyslexic medical students in medical school. One limitation was the number of participants in the study. We interviewed a total of five medical students. In addition, snowball sampling was used to obtain participants for the study. These factors may impact the generalizability of the study. This was primarily due to the short window given for recruitment for the project. While this is a small number of students, we hope this will spark discussion and inform future research into the field.

Another potential ethical issue is that the principal investigator, DT, has dyslexia. This might be a cause of possible bias in the research. Having such proximity might result in firmly held opinions and beliefs. This might result in utilising the information to the investigator's benefit.[35] However, efforts are taken to reduce biases. Conceptual frameworks were used to maintain objectivity, such as reflection on actions of position-taking and power and how different actions might embody different meanings.[36] Finally, the involvement in discussions with the principal investigator and MHB also aided in a more objective report

Moreover, there are strengths in the principal investigator of the study being dyslexic. As mentioned, this allows for higher relatability and empathy to participants, helping bridge the power gap between interviewer and interviewee. Furthermore, it allows for greater contextualisation of the data provided to reduce bias in theories and interpretations of human cognition and behaviour by drawing inspiration from neurodivergent individuals' lived experiences and strengths.[37] Participatory research has also proved to improve scientific rigour and credibility.[38]

Finally, participants of the study were also 'member checkers' for the study, following advice from Fram.35 They were sent out the results section of the final report to review, giving feedback on whether the report resonated with them. All five of them responded, stating that it did resonate with them.

Summary – Accelerating Translation

This study explored the experiences of dyslexic medical students in a UK medical school. Results showed the challenges faced and strengths the participants employed in managing their learning. The positive impact of the response to the COVID-19 pandemic was highlighted, and participants disclosed that there is still a stigma towards dyslexia in medical education.

Recommendation

We recommend increasing education about dyslexia within the medical faculty and students, emphasising the challenges and the strengths associated with the condition.10, 13, 20 We also suggest reframing curriculum delivery to make it more accessible for all learners rather than making specific accommodations for neurodiverse students. 4,13. With the rise of technology in medical education, we hope medical schools will move beyond traditional teaching methods and expand their instructional approaches. 20,39

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Conflict of Interest Statement & Funding

Daniel Yi Liang Tan is diagnosed with Dyslexia. There are no other conflicts of interest. NIL financing involved with NIHR (UK) nor NIH (US). Daniel is currently working as a doctor for the Singapore Government.

Author Contributions

Conceptualization: DTYL. Data Curation: DTYL. Formal Analysis: DTYL. Investigation: DTYL. Methodology: DTYL. Project Administration: DTYL. Supervision: MHB. Validation: DTYL. Visualization: DTYL. Writing - Original Draft: DTYL. Writing - Review Editing: MHB.

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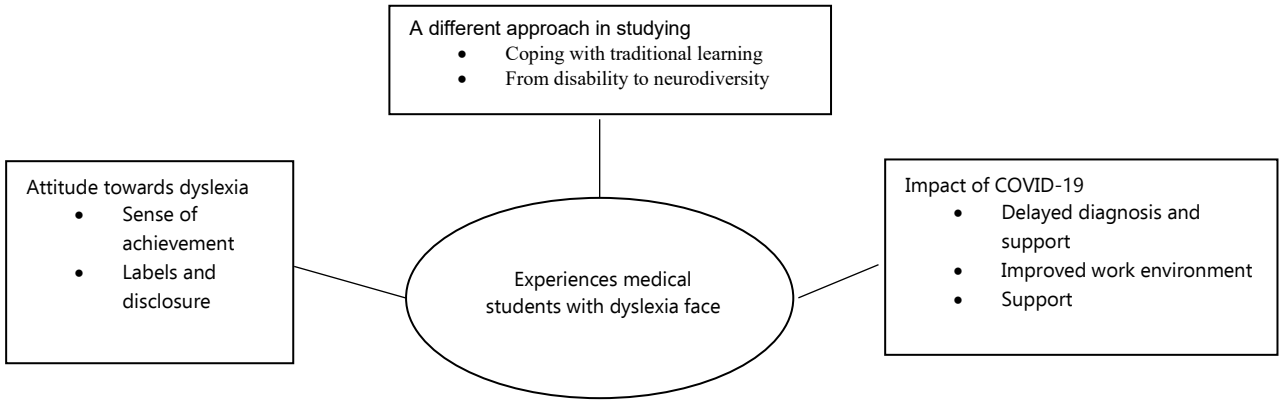
Supplementary Material

1 summary figure



Sumpplementary 1 : COREQ: 32 item Checklist

Consolidated criteria for reporting qualitative studies (COREQ): 32-item checklist

Please indicate in which section each item has been reported in your manuscript. If you do not feel an item applies to your manuscript, please enter N/A.

For further information about the COREQ guidelines, please see Tong *et al.*, 2017: https://doi.org/10.1093/intqhc/mzm042

No.	Item	Description	Section #
Domain 1: Research team and reflexivity			
Personal characteristics			
1.	Interviewer/facilitator	Which author/s conducted the interview or focus group?	DT
2.	Credentials	What were the researcher's credentials? *E.g. PhD, MD*	NIL
3.	Occupation	What was their occupation at the time of the study?	Medical Student
4.	Gender	Was the researcher male or female?	Male
5.	Experience and training	What experience or training did the researcher have?	iBSC Medical Education
Relationship with participants			
6.	Relationship established	Was a relationship established prior to study commencement?	Yes
7.	Participant knowledge of the interviewer	What did the participants know about the researcher? *E.g. Personal goals, reasons for doing the research*	Researcher is dyslexic
8.	Interviewer characteristics	What characteristics were reported about the interviewer/facilitator? *E.g. Bias, assumptions, reasons and interests in the research topic*	NIL

Domain 2: Study design			
Theoretical framework			
9.	Methodological orientation and theory	What methodological orientation was stated to underpin the study? *E.g. grounded theory, discourse analysis, ethnography, phenomenology, content analysis*	Iterative Comparative Approach
Participant selection			
10.	Sampling	How were participants selected? *E.g. purposive, convenience, consecutive, snowball*	Purposive/ Snowball
11.	Method of approach	How were participants approached? *E.g. faceto-face, telephone, mail, email*	6
12.	Sample size	How many participants were in the study?	5
13.	Non-participation	How many people refused to participate or dropped out? What were the reasons for this?	0
Setting			
14.	Setting of data collection	Where was the data collected? *E.g. home, clinic, workplace*	Home/ University
15.	Presence of nonparticipants	Was anyone else present besides the participants and researchers?	No
16.	Description of sample	What are the important characteristics of the sample? *E.g. demographic data, date*	Medical students with Dyslexia
Data collection			
17.	Interview guide	Were questions, prompts, guides provided by the authors? Was it pilot tested?	Yes
18.	Repeat interviews	Were repeat interviews carried out? If yes, how many?	No
19.	Audio/visual recording	Did the research use audio or visual recording to collect the data?	Yes
20.	Field notes	Were field notes made during and/or after the interview or focus group?	No
21.	Duration	What was the duration of the interviews or focus group?	1 Hour
22.	Data saturation	Was data saturation discussed?	No
23.	Transcripts returned	Were transcripts returned to participants for comment and/or correction?	No
Domain 3: analysis and findings			
Data analysis			
24.	Number of data coders	How many data coders coded the data?	1

25.	Description of the coding tree	Did authors provide a description of the coding tree?	Yes
26.	Derivation of themes	Were themes identified in advance or derived from the data?	Derived from Data
27.	Software	What software, if applicable, was used to manage the data?	NVivo
28.	Participant checking	Did participants provide feedback on the findings?	Yes
Reporting			
29.	Quotations presented	Were participant quotations presented to illustrate the themes / findings? Was each quotation identified? *E.g. Participant number*	Yes
30.	Data and findings consistent	Was there consistency between the data presented and the findings?	Yes
31.	Clarity of major themes	Were major themes clearly presented in the findings?	Yes
32.	Clarity of minor themes	Is there a description of diverse cases or discussion of minor themes?	Yes

When submitting your manuscript via the online submission form, please upload the completed checklist as a Figure/supplementary file.

If you would like this checklist to be included alongside your article, we ask that you upload the completed checklist to an online repository and include the guideline type, name of the repository, DOI and license in the *Data availability* section of your manuscript.

Developed from: Allison Tong, Peter Sainsbury, Jonathan Craig, Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups, International Journal for Quality in Health Care, Volume 19, Issue 6, December 2007, Pages 349–357, https://doi.org/10.1093/intqhc/mzm042