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Original Article

The Role and Impact of Dyslexia Awareness Workshops in the Medical Curriculum

Mitchell Osei-Junior,[1,2] Mayya Vorona.[1,2]

Abstract

Background: To increase recognition of the number of students who study medicine with dyslexia and the support available, it is important to cultivate a culture in which peers can support fellow peers with dyslexia academically and pastorally. This study aims to understand medical students' perceptions of dyslexia and confidence with supporting fellow peers with dyslexia before and after a workshop on dyslexia. **Method:** Pre-Post Intervention Evaluation form of 36 1st year medical students before the start of a small group dyslexia awareness session and one month after using a standardized 36 True/False/Don't know questionnaire to elicit any significant change in knowledge about dyslexia. A standardized 6-item Likert Scale questionnaire was also administered in the same time frame to measure confidence in supporting peers with dyslexia. **Results:** Pre-dyslexia awareness workshop, the mean score on the knowledge and beliefs about dyslexia questionnaire was 15.22, post-intervention this improved to 24.03 ($p<0.001$). Additionally, pre-intervention greater than 70% of participants reported feeling not confident in items in the confidence questionnaire associated with supporting dyslexia peers academically or signposting to reasonable adjustments and further support. This changed post-intervention with greater than 88% agreeing or strongly agreeing with these items. **Conclusion:** At a baseline level, medical students have less precise accuracy in knowledge and beliefs about dyslexia and are not confident in supporting dyslexia peers academically. The findings suggest that dyslexia awareness workshops in the medical curriculum have benefits in increasing knowledge about dyslexia and providing students with confidence in supporting their fellow peers with dyslexia.

Introduction

According to statistics from the British Medical Association (BMA), the estimated prevalence of medical students with dyslexia was 1.7% in 2009 and is believed to have increased since then.[1] Dyslexia is a common "learning difficulty" present in approximately 10% of the UK population.[2] According to the 10th edition of the International Classification of Disorders (ICD-10), dyslexia is classified as difficulties with reading despite normal intelligence.[3] Although the severity of different aspects of dyslexia varies amongst individuals, common traits include difficulties with spelling, reading speed, comprehension, and pronunciation of words.[3] Dyslexia is formally diagnosed by either an educational psychologist who specializes in specific learning difficulties or a specialist teacher/assessor with an assessment practicing certificate.[4] This is done through a series of cognitive tests which measure the individual's strengths and weaknesses. This cognitive profile can influence significantly how medical students diagnosed with dyslexia are impacted in university.

Common challenges faced by students with dyslexia in higher education include notetaking in lectures, writing essays for assignments, and processing large information of text in their independent reading and revision.[5] In medicine specifically, a review conducted by Shaw et al. (2017) found that students with dyslexia experienced more difficulties with essay-based assessments in the degree and were slow to adapt to the study format required for medical school. This often made the first year of medical school difficult for students with dyslexia. However, it was found that after first-year students with dyslexia were able to perform on a similar level with their non-dyslexic counterparts through the rest of the degree if reasonable adjustments were in place.[6] Common reasonable adjustments available to students with dyslexia include access to dictaphones and spell checkers, as well as 25% extra time for exams.[7] The 25% extra time adjustment has been seen to be useful in closing the gap in scores between medical students with and without dyslexia.[8]

Not only can dyslexia affect students academically but psychologically as well. A study by Ghishi et al. (2016), who compared 28 university students who had dyslexia with a control group, found that the students with dyslexia reported higher rates of depression and lower self-esteem.[9] In the field of healthcare specifically, this could be attributable to stigma and confidence in disclosing their dyslexia to fellow peers. Although research on this has not been carried out specifically with medical students, a study by Shaw and Anderson (2017) which interviewed 8 junior doctors found that the junior doctors reported common themes of feeling uncomfortable with disclosing their dyslexia and struggling emotionally at work.[10]

[1] Recent Graduate (class of 2021). King's College London, London, United Kingdom.

[2] MBBS, BSc (Hons). King's College London, London, United Kingdom.

About the Author: *Mitchell Osei-Junior is a recent medicine graduate of King's College London (class of 2021). He also completed an intercalated BSc in Psychology (2017-2018.*

Correspondence:

Mitchell Osei-Junior.

Address: Strand, London WC2R 2LS, United Kingdom

Email: mitchellojtutor@gmail.com

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These feelings were also echoed by nursing students with dyslexia on placement who have felt unwanted.[11,12] As such, it is important to assess knowledge and stigma in healthcare degrees, to facilitate the development of supportive peers in these healthcare programmes. It is also interesting to see what role near-peer mentoring could have on addressing both the academic challenges associated with the first year of medical school and the psychological aspects.

Near-peer mentoring involves medical students in more senior years helping junior students with accessing the medical curriculum.[13] Generally, junior students report feeling more prepared and supported in medical school and the senior medic mentors find this role beneficial for when they will be in similar roles as doctors in teaching hospitals.[13] In terms of emotional wellbeing, a review conducted by Akinala et al. (2018) found that not only do studies show an academic benefit for first-year medical mentees, but also psychological benefits in terms of reducing stress levels, facilitating the transition into university and inter-personal development.[14] No study so far has investigated the role of peer mentoring specifically on students with dyslexia. However, before a study investigating this can be conducted, it is important that a study is done to measure medical students' baseline knowledge of what dyslexia is and the academic challenges which students with dyslexia can experience.

Currently, no research has been done to see medical students' current knowledge and beliefs on dyslexia, as well as how confident they feel with supporting their peers with dyslexia. This is important as older medical students play a significant role academically, socially, and emotionally to their younger peers, and as such, it is important medical students are trained in how to support their peers with dyslexia. For this change to be facilitated, a study needs to be done which assesses the baseline of what medical students already know about dyslexia and their views about how confident they are in supporting their peers with dyslexia. A training session then needs to be delivered which aims to increase the medical students' knowledge of dyslexia and provide them with an interactive simulated activity of supporting their peers with dyslexia. This must be followed up one month later to observe if longitudinally this session improved the students' knowledge and confidence in supporting peers with dyslexia.

Once these questions have been researched, these findings could be used to firstly address if there is any need or benefit for dyslexia awareness workshops in the medical degree programme. If there is a need, then the study could illustrate what can be learnt in terms of replicating or amending the workshop provided to medical students in this study to integrate into the medical curriculum across medical schools.

This study aims to achieve these objectives by:

(i) Administering a pre-intervention evaluation questionnaire that quantitatively assesses the baseline of the following:
   (a) How accurate are medical students' pre-existing knowledge of dyslexia?
   (b) How confident are medical students in supporting their peers with dyslexia?

(ii) One month after the delivery of a small group seminar which aims to inform students about dyslexia and offer a simulated activity to practice supporting a peer with dyslexia, administer a post-intervention evaluation which quantitively assesses if there was any change in the accuracy of the knowledge of dyslexia and confidence in supporting peers with dyslexia.

Methods

The study was completed with the support and collaboration of the lead for the steering committee for Diversity and Cultural Competency in Medical Education at King's College London Medical School. The study was ethically approved by King's College London Research Council (MRSU-20/21-21889) and the data was handled in accordance with the policies outlined in the General data protection regulation Act (2018).

Design

This study was a pre-post intervention evaluation study which was both cross-sectional and longitudinal. This study aimed to primarily test medical students' knowledge of dyslexia before and after attending a taught session on dyslexia. The independent variable was attending the small group seminar on dyslexia awareness. The dependent variable was the score on a standardized dyslexia knowledge test. Their responses were scored correctly or incorrectly according to the statement. A confounding variable this study controlled for was the influence of revision of the content in the session on the validity of the answers provided in the post-intervention questionnaire. Consequently, to control for this, students were not sent a copy of the slides during the research period. Students were also informed at the end of their workshop not to revise facts about dyslexia from the internet or books during the month interval.

Sample

The sample consisted of medical students currently in their 1st year of the degree programme at King's College London. They were invited to take part in the study by a participant information letter being placed on their 1st-year medical students Facebook and WhatsApp Groups via the Medical Student Association. Initially, 46 students were recruited into the study. Between the 2 phases of the study, there was an attrition rate of 21.7%, and as such 36 participants' data were included in the final analysis with the sample including 94.4% being females and 5.6% being males. This is illustrated below in *Figure 1*.

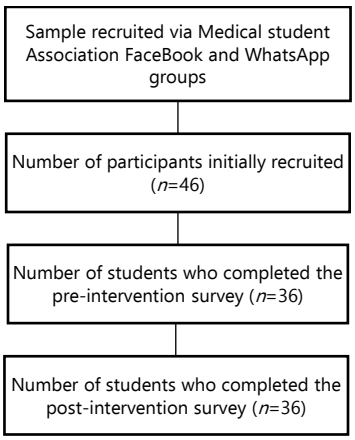
Survey questionnaire

A scale of knowledge and beliefs about developmental dyslexia (Soriano-Ferrer & Echegaray-Benoga, 2014)

The scale of knowledge and beliefs about developmental dyslexia contains 36 items measuring knowledge of dyslexia.[15] The item format included "true" "false" and "don't know" questions. Items

assessed 3 main aspects of knowledge of dyslexia: general information, diagnostic traits, and management.[15] The items were scored positively for any correct answers which matched up with the guidance provided by Soriano-Ferrer & Echegary-Benoga (2014). A cumulative total score was acquired by adding up the number of correct responses to the items. Higher total scores demonstrated that the student had more knowledge and awareness of dyslexia. It has been found in the very same study in which the questionnaire was created that the test is psychometrically reliable with a Cronbach's alpha of 0.76.[15]

Figure 1. Flow Diagram of Sample Size During the Recruitment and Pre-post Intervention Phases of the Study**.**



Prevalence estimate

This segment of the questionnaire asked the participants the following two questions on prevalence:

Question 1: In the UK, according to data provided by GOV.UK 2017 statistics, what percentage of the population have been diagnosed with dyslexia?

Question 2: According to the data provided by the British Medical Association in 2009, what percentage of medical students in higher education in the UK have been diagnosed with dyslexia?

Participants provided responses in the form of a percentage and the accuracy of their guess was analysed by how significantly their responses deviate from the actual statistics provided by GOV.UK and British medical Association.[1,2] A significant difference in the estimate will be deemed as being an 'underestimate' if significantly lower and an 'overestimate' if significantly higher.

Confidence in supporting peers with dyslexia questionnaire

This questionnaire contained the following 6 items which measure the participant's confidence in supporting their peers with dyslexia:

Question 1: I am confident that I am aware of how to adapt my way of giving information to my fellow peers with dyslexia.
Question 2: I am confident in my abilities to adapt my teaching style to be "dyslexic friendly".
Question 3: I am confident in my ability to provide emotional support to my fellow peers with dyslexia.
Question 4: I am confident in my abilities to empower my peers with dyslexia with strengths they may have.
Question 5: I am confident in my abilities to inform peers with dyslexia what reasonable adjustments they are entitled to in my medical school?
Question 6: I am confident in my abilities to sign-post my peers with dyslexia where they could find out more information addressing their needs at my medical school.

These items used a 5-point Likert scale measuring how much the participants agree with each statement. The answers ranged from 'Strongly disagree' to 'Strongly agree'. Items were grouped according to the following categories: Items 1 and 2 assessed the students' confidence in supporting their peers with dyslexia academically, items 3 and 4 assessed the students' confidence in supporting psychologically and items 5 and 6 assessed the student's confidence in their abilities in giving and signposting information for reasonable adjustments that may help their peers with dyslexia.

Each item's response will be compared proportionally using a divergent stacked bar chart. Confident responses were counted as 'agree' and 'strongly agree' to the items. A higher proportion of participants who gave 'strongly agree' or 'agree' to an item suggests higher levels of confidence towards the domain of interventional peer support the item was testing.

Demographics questionnaire

The questionnaire recorded the participant's sex.

Procedure

Two weeks before the session, participants who were recruited were provided with a reminder of the participation information sheet and were informed of their rights to consent and withdraw from the study at any time.

Participants were asked via a confidential mailing list to fill in an online pre-intervention questionnaire on Google Forms which contained a scale of knowledge and beliefs about developmental dyslexia, prevalence estimate, confidence in supporting peers with dyslexia questionnaire, and demographics questionnaires.

The participants then attended a one-hour semi-structured small group hour-long session which is delivered by a medical student in their advanced years of the training through Microsoft Teams, who was provided a presentation provided by the researchers of the study. The instructor was trained by the researchers through a detailed run-through of the slides, to give the presentation which covered the following:

1. What is dyslexia (diagnostic criteria) and how can it impact the medical education experience both positively and negatively. [Knowledge and Awareness component]
2. Discussion activity: How could dyslexia impact learning preclinical medicine and how can we navigate this? [Doctor as Teacher component]
3. What reasonable adjustments and services are available in medical school for students with dyslexia? [Knowledge and Awareness/Pastoral Support components]
4. A simulated practical component linking Communication Skills taught in their first-year workshops with providing advice and addressing concerns of a fellow medical peer with dyslexia. [Pastoral Support components]

Each session consisted of a seminar group consisting of group sizes ranging between 3 to 5 students. The name of the attendees was recorded into a confidential mailing list for the post-intervention evaluation forms. Participants who attended the workshop were then reminded that one month later they will be sent a Google Form link to the post-intervention questionnaire which will be provided in a confidential e-mail sent to them. The questionnaire was the same as the one used for the pre-intervention questionnaire.

Statistical analysis

Data were analysed using the SPS Version IBM 27.0 software package. Statistical significance was measured at a 5% level ($p \leq 0.05$). For interpretation of the results, the accuracy of knowledge and the estimate of dyslexia in the population and medicine was provided as a mean percentage before and after the programme. Any significant difference before and after the taught programme was analyzed using a two-tailed dependent t-test. Additionally, any significant difference between the estimates and actual prevalence was measured too using a two-tailed dependent t-test.

Participants' confidence in supporting peers with dyslexia pre- and post-session was analyzed descriptively using a stacked bar chart to show the proportions associated with each point of the Likert scale per item.

Results

Baseline demographics

Demographically, over nine-tenths of the sample were female (94.4%).

Questionnaires- Accuracy of knowledge about dyslexia

The mean number of items correct in the A scale of knowledge and beliefs about developmental dyslexia questionnaire, as well as the mean estimate in the prevalence estimate questionnaire before and after the workshop are summarized in the table below (*Table 1*).

A scale of knowledge and beliefs about developmental dyslexia

To determine whether there was any significant change in the number of items scored correct in the questionnaire post-intervention, a two-tailed dependent t-test was conducted. The number of items scored correctly from the pre-intervention (Mean= 15.22, SD= 4.81) and post-intervention (Mean=24.03, SD= 3.19) indicates that the dyslexia awareness workshop resulted in an improvement in the number of items scored correctly in the knowledge and beliefs questionnaire, $t(35) = 9.2$, $p < 0.001$.

Table 1. Mean Scores and Standard Deviation (SD) for Questionnaires "A Scale of Knowledge and Beliefs about Developmental Dyslexia" and "Prevalence Estimate".

Variable	Pre-intervention (*n*=36)		Post-intervention (*n*=36)	
	Mean	SD	Mean	SD
Number of items correct in the "*a scale of knowledge and beliefs about developmental dyslexia*"	15.22	4.81	24.03*	3.19
Estimate for percentage prevalence of dyslexia in the UK (in %)	14.65	11.24	11.28	6.23
Estimate for percentage prevalence of dyslexia in UK medical schools. (in %)	8.51	9.60	2.73*	2.08

Legend: [*] – to indicate any significant difference made pre-and post programme ($p<0.05$).

Prevalence estimate

To determine if there was any significant difference between the estimates for the percentage prevalence of the people in the UK with dyslexia and medical students in the UK with dyslexia and the participants' estimations pre-intervention (*Table 1*), a one-sample t-test was conducted. For the percentage prevalence of dyslexia in the UK, the test value was 10.0 and for the percentage prevalence of dyslexia in medical schools the test value was 1.7. Pre-intervention, participants overestimated both the percentage prevalence of dyslexia in the UK, $t(35) = 2.8$, $p= 0.008$ and the percentage prevalence of dyslexia in UK medical schools, $t(35) = 4.8$, $p < 0.001$.

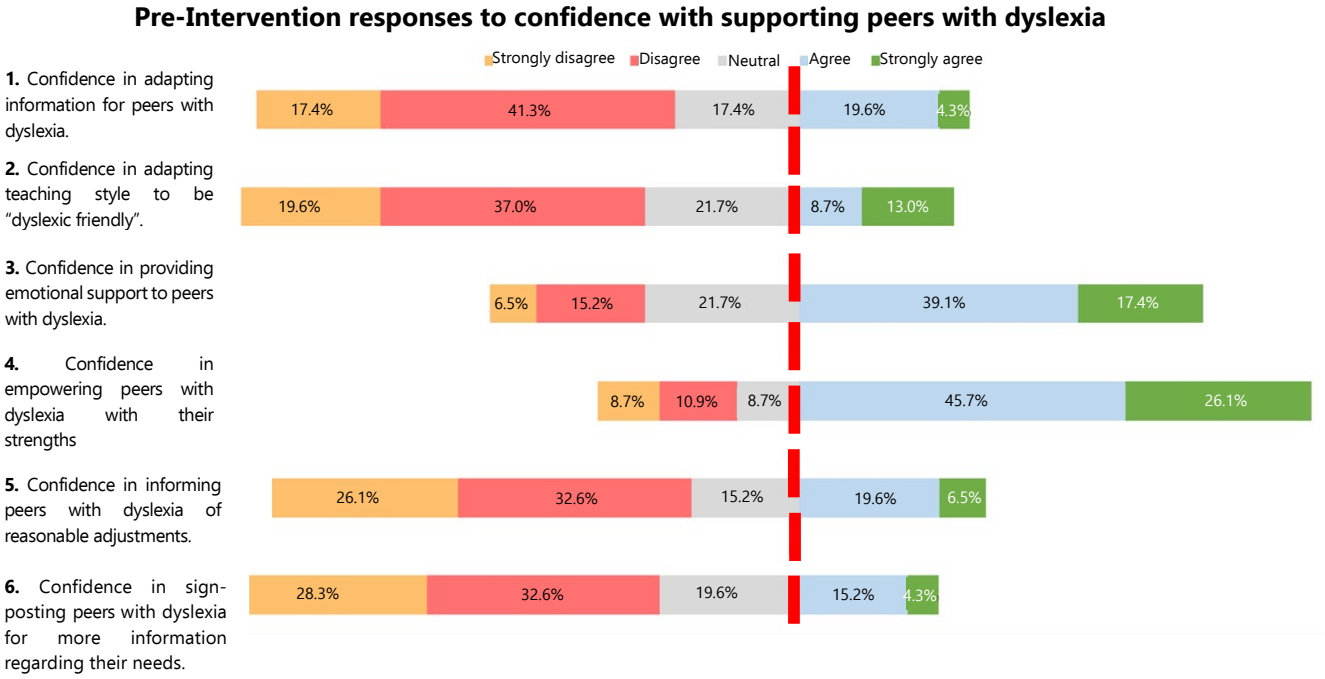
To investigate if there was any significant change in the estimates provided by participants pre-and post-workshop, a two-tailed dependent t-test was conducted. The estimated percentage prevalence of dyslexia in UK pre-intervention and post-intervention showed the dyslexia awareness workshop did not make any significant difference on the participant's estimate of the percentage prevalence of dyslexia in the UK, $t(35)= 2.1$, $p = 0.12$. However, the estimated prevalence of dyslexia in UK medical schools pre-and post-intervention showed that the dyslexia awareness workshop made a significant improvement to the

participant's estimate of the percentage prevalence of dyslexia in UK medical schools, $t(35)= 3.5$, $p < 0.001$. Despite this improvement, a one-sample t-test conducted on the post-intervention estimate of the percentage prevalence of dyslexia in UK medical schools showed that the participants still overestimated the percentage prevalence, $t(35)= 3.0$, $p = 0.005$.

Questionnaires- Level of confidence in supporting peers with dyslexia

The proportional distribution of the responses to the different items of the Likert scale "Confidence in supporting peers with dyslexia questionnaire" pre-and post-intervention are graphically summarized in *Figure 2* and *Figure 3* below.

Figure 2. Divergent Stacked Bar Chart of Responses to Confidence in Supporting Peers with Dyslexia Questionnaire Pre-Dyslexia Awareness Workshop. The red dotted vertical line separates the proportion of non-confident responses to the statements (left hand side) from the proportion of confident responses (right hand side).



Proportionally, *Figure 2* shows that before attending the dyslexia awareness workshop, the majority of the participants reported feeling not confident in the items involving adapting the way they teach and deliver information to their peers with dyslexia (76.1% for Item 1 and 78.3% for Item 2) and items involving giving and signposting information for reasonable adjustments that may help their peers with dyslexia (73.9% for Item 5 and 80.9% for Item 6). However, for items based on providing support for the emotional aspects of dyslexia there just over a half of the participants reported feeling confident in providing emotional support to peers with dyslexia (56.5% for Item 3) and almost three-quarters (71.8% for Item 4) reported feeling confident in empowering peers with dyslexia with strengths they may have.

Figure 3 shows proportionally how levels of confidence for each item of the "confidence in supporting peers with dyslexia" questionnaire have become after the dyslexia awareness workshop. For all items, no participants strongly disagreed or disagreed with any of the statements. For all items except Item 6, more than 90% of participants agreed or strongly agreed with the statements. The results suggest an improvement overall for participants in the study in the level of confidence in supporting peers with dyslexia.

Discussion

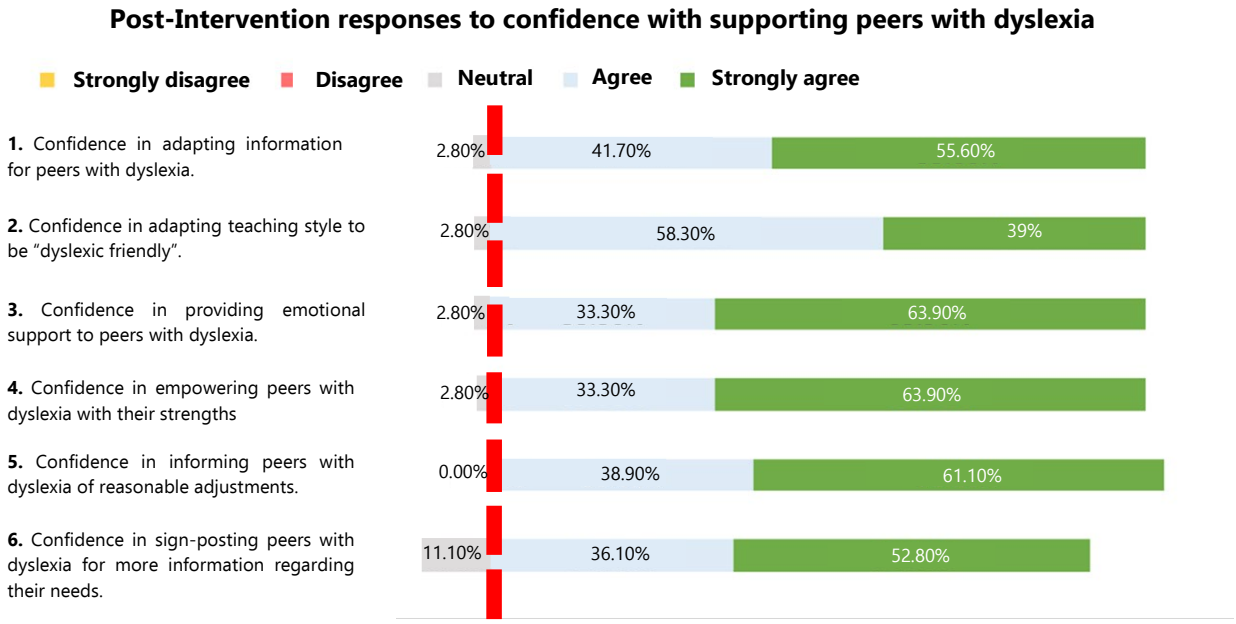
The data gathered for this study represents the first study to measure medical students' baseline knowledge of dyslexia as well as their level of confidence in supporting their peers with dyslexia. It is also the first study to measure the influence of an interventional dyslexia awareness workshop on impacting the student's level of knowledge of dyslexia as well as their confidence in their role of supporting other medical students with dyslexia.

At a baseline level, the study found that the first-year medical students had less than 50% accuracy in the 36-item questionnaire on knowledge and beliefs about dyslexia before attending the interventional workshop. The study also found at a baseline level, that medical students overestimate not only the prevalence of dyslexia the UK but also in the UK medical student population. Additionally, before the intervention almost over three-quarters of the first-year medical students self-reported lower levels of confidence in supporting fellow medical student peers with dyslexia academically through altering their teaching and information delivery approach and signposting them to where they can get more information on reasonable adjustments and

support for their academic needs. However, most of the same students self-reported feeling able to provide emotional support and empowerment to their peers with dyslexia in medicine.

Observing findings from similar studies assessing knowledge of individuals in roles that involve supporting students with dyslexia such as teaching and lecturing, it is not unexpected to see such findings in terms of a lower level of accuracy in knowledge in terms of dyslexia and thus providing support to the dyslexic student community. Soriano-Ferrer et al. (2016), who used the same knowledge and beliefs questionnaire in this study, found that in a sample of 246 pre-service teachers and 267 in-service teachers in Peru and Spain scored similar means to those found in this study (M=16.38 for pre-service teachers and M=19.55 for in-service teachers).[16] This study did explain that experience and exposure to students with dyslexia can improve knowledge and beliefs, as shown by the higher score in the in-service teachers. However, experience alone without the training in dyslexia awareness, cannot positively improve knowledge about dyslexia. A similar study to this investigating both knowledge and level of confidence in supporting students with dyslexia was conducted with 260 primary school teachers in Turkey, which also found that primary school teachers demonstrated a low level of knowledge about dyslexia and additionally reported feeling not ready to teach students with dyslexia.[17] This study suggests a relationship between knowledge about dyslexia and confidence in facilitating education to individuals with dyslexia. These findings are also similarly reported in the higher education sector.

Figure 3. Divergent Stacked Bar Chart of Responses to Confidence in Supporting Peers with Dyslexia Questionnaire Post-Dyslexia Awareness Workshop. The red dotted vertical line separates the proportion of non-confident responses to the statements (left hand side) from the proportion of confident responses (right hand side).



Findings from a study conducted by Schabmann et al. (2018), which assessed the knowledge of 234 university lecturers in Germany, found that the majority of lecturers lacked knowledge especially in the areas of how dyslexia is diagnosed and measures that can be implemented for students with dyslexia.[18] One third of the participants also reported only offering exam adjustments support and advice and were unsure of what other advice to give. Similar levels of confidence were reported in a UK university-based study by Ryder and Norwich (2018) which included lecturers from 12 different universities.[19] The lecturers felt not only were they unaware of how best to support their students with dyslexia but also unaware of current research knowledge into dyslexia pedagogically.[19] These studies implicate the relationship between knowledge and the ability to confidentially support students academically and be aware of signposting to address academic needs. Similar findings highlighted in both those responsible for teaching and peers who could provide support show the need for training in dyslexia awareness.

Post-intervention, this study has found that there was an improvement in the medical students' knowledge and beliefs about dyslexia with an average of 66% accuracy in the items of the same questionnaire. In addition, post programme the study found a large improvement with almost all participants self-reported feeling confident with supporting their peers with dyslexia academically, psychologically and being more confident in knowing where to signpost their peers to obtain reasonable adjustments and advice for their needs. These findings suggest an applicational benefit in the role of providing dyslexia workshops in the medical curriculum especially for older medical students who are involved in near peer mentoring. There are implications that dyslexia awareness trained near-peer mentors

will be more confident in providing academic and psychological support to potential mentees who may have dyslexia. Despite these improvements, the medical students still overestimated the prevalence of dyslexia in both the UK and UK medical schools.

So far there are currently no findings that explore the public's perceptions of the prevalence of dyslexia. This empathises that there is not only a gap in understanding how those who play role in medical education estimate how common dyslexia is but in society in general. Without understanding, if the trend to overestimate the prevalence of dyslexia is also found in the general population, it will make it difficult to find the best solution to reduce this overestimate in the medical education sector. Therefore, this study highly recommends future research conducted which investigates the public's perception of the prevalence of dyslexia.

In terms of the post-interventional improvements found in this study, similar findings were found in a larger scale study which is the only of its kind to investigate the role of dyslexia awareness on perceptions. Knight's 2018 study involved a sample of 2,600 teachers in England and Wales.[20] In this study, teachers completed an online survey that assessed their knowledge of dyslexia, confidence with working with students with dyslexia, and if they had much training with dyslexia. Less than 30% of the participants had dyslexia awareness training as part of their teacher training programme.[20] The teachers who had dyslexia awareness training demonstrated more knowledge of the cognitive aspects of dyslexia as well as reported feeling more confident with assisting students with dyslexia.[20] Given the reliability and statistical power of the large-scale study presenting similar findings to our study for medical students, it is important to have dyslexia awareness embedded into the medical curriculum and have more research done on larger cohorts to see if similar results are found. However, this does raise the question for future studies, if a different method of delivery of the dyslexia awareness intervention such as in a lecture-based format could yield a similar impact on the benefits gained from this intervention.

Limitations

This study was limited by its small, predominately female-based sample (94.4% female to 5.6% male). Future studies replicating the methods of this study should use a larger sample that is representative of the general male-to-female ratio present within medical schools. Additionally, the study was limited to only longitudinally measuring change in behaviours regarding knowledge, beliefs, and confidence in helping peers with dyslexia in pre-clinical medicine and the more theoretical academic side of medicine. It will be interesting for future programmes and research aiming to shape neurodiversity awareness and support in medicine by identifying the challenges most persistently present in students with dyslexia during clinical years in terms of clinical skills acquisition and how student peers and mentors can play a significant role in supporting their counterparts with dyslexia.

Acknowledgements

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Summary – Accelerating Translation

Title: The Role and Impact of Dyslexia Awareness Workshops in the Medical Curriculum

Main problem to solve: According to statistics from the British Medical Association (BMA), the estimated prevalence of medical students with dyslexia is 1.7% during 2009 and is believed to have increased since then. Dyslexia is classified as difficulties with reading despite normal intelligence. Other common difficulty traits shared amongst individuals with dyslexia include spelling, reading speed, comprehension, and pronunciation with words. Previous research has shown that medical students (especially firstyear students) with dyslexia experienced more difficulties with adjusting to the study format required for medical school. Psychological difficulties were also found with members of healthcare professionals with dyslexia exhibiting lower self-esteem and struggling emotionally.

Research has shown a benefit generally of the role of near-peer mentoring in supporting younger medical students both academically and emotionally. Currently no research exists that understands what medical students know about dyslexia. Therefore, it is essential to understand what current medical students know about dyslexia and their level of confidence in supporting their peers with dyslexia. Additionally, it is crucial to teach them the knowledge required to help their near-peer mentees with dyslexia in the medical program both academically and emotionally.

Aims of the study: The primary aim of the research is to administer a questionnaire to measure a baseline of the following: (a) How accurate are medical students' pre-existing knowledge of dyslexia? And (b) How confident are medical students in supporting their peers with dyslexia? The study also wanted to measure if an hour workshop would have an effect on their knowledge of dyslexia and their confidence in supporting their peers with dyslexia one month later.

Methodology: 36 1st year medical students were included in the study. Prior to the workshop the participants were given a standardized 36-item "scale of knowledge and beliefs about developmental dyslexia" questionnaire to assess their baseline knowledge as well a questionnaire in confidence in supporting peers with dyslexia to assess their baseline confidence. A one-hour small group workshop was then delivered to participants which covered the following components about dyslexia: knowledge and awareness, teaching, and pastoral support. One month later, the same questionnaires were administered to the participants to measure any changes in knowledge and confidence.

Results: In terms of knowledge about dyslexia, at a baseline level the participants scored an average of 15.22 out of the 36 points available. This average increased significantly to 24.03 one month after the workshops. In terms of confidence, pre-workshop greater than 70% of participants reported feeling not confident in items in the confidence questionnaire associated with supporting dyslexic peers academically or signposting to reasonable adjustments and further support. This changed post-workshop with greater than 88% agreeing or strongly agreeing with these items.

Conclusion: At a baseline level, medical students have less precise accuracy in knowledge and beliefs about dyslexia and are not confident in supporting their peers with dyslexia academically. The findings suggest that dyslexia awareness workshops in the medical curriculum have benefits in increasing knowledge about dyslexia and providing students with confidence in supporting their fellow peers with dyslexia.

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