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NEURODIVERSITY IN VOCATIONAL EDUCATION:
OBSERVATIONS AND LEARNINGS FROM TEACHING
HEALTHCARE ASSISTANT PROGRAMMES

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NEURODIVERSITY IN VOCATIONAL EDUCATION: OBSERVATIONS AND LEARNINGS FROM TEACHING HEALTHCARE ASSISTANT PROGRAMMES

Elizabeth Youard, Lizzy Guest, Carolyn Wilson and Mary Cooper

INTRODUCTION

Neurodiversity is an umbrella term that describes the natural variation in how human brains think and learn. It includes neurotypical brains, which are assumed to be 'normal,' and neurodivergences, which are differences in neurological functioning compared to the norm (Fletcher-Watson, 2020). Conditions such as autism spectrum disorder (ASD), attention deficit hyperactivity disorder (ADHD) and dyslexia fall under the heading of neurodivergence (University of Auckland, n.d.).

When neurodivergence is associated with difficulties in learning, an individual with neurodivergence may experience a learning disability (Ministry of Education, 2020). Under the social model of disability, this learning disability is caused by barriers in the educational system, not neurodivergence itself (Office for Disability Issues, 2024). The New Zealand Disability Strategy recommends identity-first language instead of person-first language to describe disability; for example, "neurodivergent learners" is preferred over "learners with neurodivergence" (Ministry of Social Development, 2019).

This article explores the authors' combined experiences teaching neurodivergent learners in healthcare assistant programmes at one institute of technology in New Zealand. Our experiences have led to insights as a team on how we can best support the individual needs of neurodivergent learners. We discuss our collective learnings in the context of neurodivergence in vocational education and propose future research opportunities based on our experiences.

CONTEXT

We work as kaiako at an institute of technology in regional New Zealand. Our teaching team is multidisciplinary in nature, with the authors having nursing, physiotherapy and speech language therapy professional backgrounds. In addition, all of us have personal and/or whānau experience of neurodivergence that we believe helps us to be aware of the inclusion of neurodiversity in our teaching mahi.

Our institute currently offers two programmes for healthcare assistant training. The New Zealand Certificate in Health and Wellbeing (Health Assistance) (Level 3) is an entry level programme for people interested in entering the health industry. This programme is taught in classroom and clinical laboratory settings. The New Zealand Certificate in Health and Wellbeing (Advanced Care and Support) (Level 4) is a more advanced programme for those already working as healthcare assistants who are looking to upskill. It is taught in a classroom setting, with students applying learning directly in their workplace. Both programmes have online content using Moodle as a learning platform and are offered at multiple campuses across our region.

OBSERVATIONS AND LEARNINGS

Identifying neurodivergence

Our anecdotal evidence is that in recent years a higher proportion of learners entering our healthcare assistant programmes are identifying as neurodivergent. Gathering data to support this belief would need to account for learners identifying in different ways and at different times. Some learners state a diagnosed learning disability on their enrolment application and may request disability accommodations through our institute accessibility services. Others do not identify as having a disability on enrolment forms but may engage with accessibility services at a later time. Still others do not identify as having a disability or request formal accommodations, but tell us about their neurodivergence when informally discussing their learning needs during their studies.

Physical environment

The physical set up of our classrooms can help or hinder neurodivergent learners. On one campus, our classrooms have floor-to-ceiling glass walls which look out on other classes and hallways. We have found learners with ADHD are easily distracted (as are many neurotypical learners) by the background visual 'noise.' However, the environment can also be helpful. In one classroom we use there are bean bags. Learners can lie down on a bean bag when they need some time out and come back to their seat when they are ready. For tasks that require concentration, such as completing clinical paperwork, we purposely book a quiet classroom so learners experience less distractions. It is important to be aware of the sensory processing needs of neurodivergent learners and to provide breaks from overwhelming sensations in educational environments (Health Education England, 2022).

Clinical laboratories

We use clinical laboratories to simulate real-life scenarios for healthcare assistants. These are high-pressure environments requiring constant group-based mock clinical activities, role playing as both a client and a healthcare assistant. At the end of our Level 3 programme, there is an Objective Structured Clinical Examination (OSCE) in the clinical laboratory to assess practical skills. We have observed that the clinical laboratory environment and OSCE assessment are challenging and overwhelming for neurodivergent learners. This is backed by research on medical students with ADHD that found OSCEs are particularly disabling methods of assessment (Godfrey-Harris & Shaw, 2023). We have trialled a variety of accommodations in the clinical laboratory environment to facilitate learning for neurodivergent learners, which are described in the following paragraphs.

Firstly, we used mind maps as a visual resource to show that practical skills learned separately in clinical sessions are later assessed together in the OSCE. Mind maps help to show how all pieces of learning over the programme fit together.

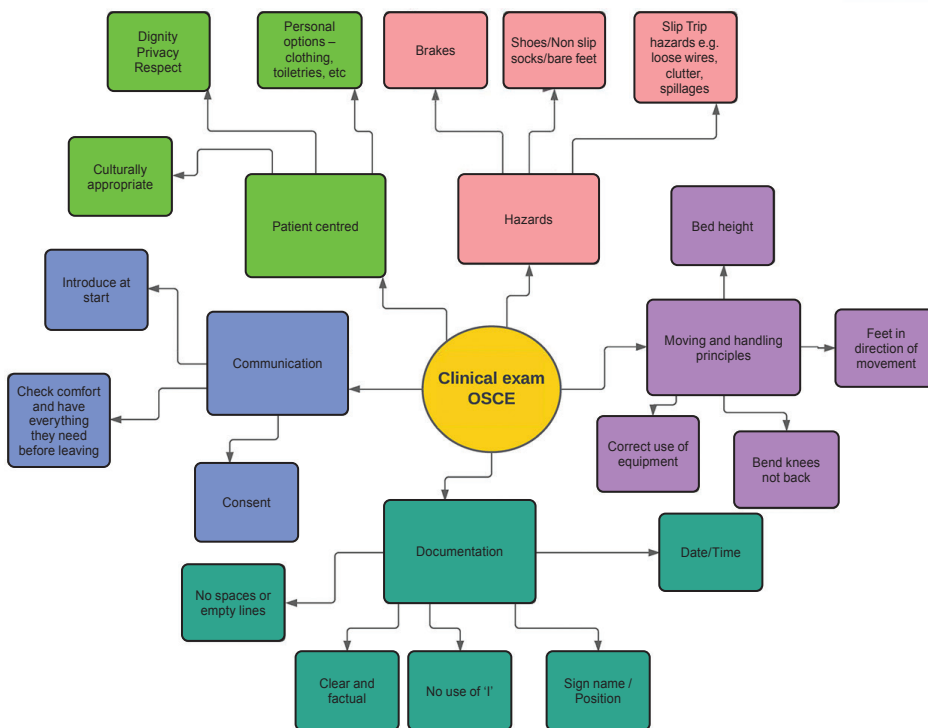


Figure 1. Example mind map of skills learned in clinical laboratories that are assessed in the OSCE.

Secondly, we added more structure in clinical laboratory sessions. This was achieved by following a set format for each class that included karakia, demonstration of skills, practising skills, applying skills to a scenario, and completing clinical paperwork. Clear timeframes and marked transitions between activities help to keep neurodivergent learners on track to finish all tasks (Health Education England, 2022).

Thirdly, we aimed to create a safer environment for learning in clinical laboratories. Some of our neurodivergent learners have told us they were victims of abuse and found the clinical laboratory environment triggering. Multiple studies have found that autistic people, especially autistic girls and women, are more likely to be victims of sexual abuse than neurotypical people (Autism Research Institute, 2024). We talked with learners who reported experiences of abuse to find out what would make them more comfortable. Solutions included being placed in groups with other women and being able to opt out of role playing the client in a scenario. On reflection, while these strategies helped our learners participate in activities, high levels of anxiety remained and further ways of creating safe learning environments for victims of abuse could be investigated.

Fourthly, as some of our neurodivergent learners experienced sensory discomfort wearing a mask, we provided extra masks for these learners to practice wearing at home. This gave our learners the opportunity to become more comfortable with the sensation of wearing a mask so that they could meet infection control standards during the OSCE. Mask wearing was an ongoing challenge for these learners but they were able to manage wearing the mask when required.

Finally, to reduce information overload, we have scheduled more practice of clinical skills in the Level 3 programme. In addition, we have occasionally voluntarily increased staffing of clinical laboratory sessions to

above the standard staff to student ratio used by our institute, although this is not sustainable in our workloads. These changes allow more time to break down skills and learn each building block and more individualised attention, and help to reduce the pressure on learners (Health Education England, 2022).

Structure and routine

We have observed that unpredictability in daily routines (for example, room changes or a surprise guest speaker) creates unneeded stress for neurodivergent learners so we plan for as much structure as possible in our programmes. The calendar is referred to often to show learners where they are in the programme journey, what activities to expect that week, and to remind them of important milestones. This assists neurodivergent learners to feel organised with their studies (Health Education England, 2022). This adherence to structure means we sometimes have to turn down unexpected extra-curricular learning opportunities. Diverting from the routine to incorporate a well-meaning activity can cause unintended disruption for neurodivergent learners and may not be worthwhile overall.

Assessment strategies

As well as the OSCE assessment described earlier, our healthcare assistant programmes contain other types of assessment tasks. A number of assessment strategies are recommended by Health Education England (2022) for working with neurodivergent learners and we have found the following tips useful. Firstly, to break assessments down into manageable chunks and progress through parts of the assessment one step at a time. Also, to provide templates and exemplars as resources so requirements are clear and learners are confident with task parameters. These strategies can complement any formal assessment accommodations in place for disabled learners through accessibility services.

Feeling overwhelmed

We have observed that some of our neurodivergent learners feel overwhelmed by their studies. This is an observation supported by research into disabled learners' experiences of vocational education in New Zealand (Cleland, 2021). Being overwhelmed combined with inadequate support has an impact on mental health and can spiral into a further lack of coping (Godfrey-Harris & Shaw, 2023). To help learners experiencing these emotions, more support from staff generally and mental health services specifically is recommended (Cleland, 2021). We have attempted to indirectly address feelings of overwhelm through the strategies described in previous paragraphs, such as adding structure. To address mental health specifically, we have organised workshops for our programmes conducted by institute mental health clinicians. These workshops cover topics such as mindfulness, emotional resilience, and healthy relationships. Learners can self-refer for individual sessions with the mental health clinicians for more support.

Professional development

With our increasing awareness of the needs of neurodivergent learners in our programmes, we have prioritised upskilling our knowledge in this area. Management organised a team workshop facilitated by a representative of a registered charity providing support for whānau with neurodiversity. The facilitator shared insights from their years of experience and suggested helpful strategies for us to use with our neurodivergent learners. We have also completed individual professional development; for example, one of the authors has attended seminars on Universal Design for Learning (UDL). In addition, we have sought advice from a senior mental health clinician working for our institute, who has supported us with strategies for managing behaviour and communicating effectively with neurodivergent learners.

Diversity

Neurodiversity in educational spaces brings new ways of seeing the world which is beneficial for all involved (Montgomery, 2023). For example, during one class discussion about why clients may not want to shower, a learner with autism suggested one reason could be the uncomfortable sensations of water on the skin. This was a fresh perspective on the topic that other learners had not voiced and led to a class discussion that facilitated understanding of sensory issues. Neurodiversity among learners helps to prepare our graduates for the diversity of clients they will work with in industry.

DISCUSSION AND CONCLUSION

Our experiences have led to new insights, but we recognise there is more we can do to help neurodivergent learners achieve their educational goals. We also aspire to uphold the New Zealand Disability Strategy, which states that learning journeys for disabled people can lead to not only academic success but also the development of social skills, relationships, confidence, and resilience (Office for Disability Issues, 2016).

An ongoing challenge is identifying which of our learners are neurodivergent in order to best understand and support their learning needs. Disabled learners may delay or decline stating their disability on enrolment forms for reasons that include stigmatisation (Lisle & Wade, 2013), fear of discrimination that may impact on future employment opportunities (Martin, 2010), and previous experiences of dealing with negative perceptions of disabilities (Demery et al., 2012). These findings suggest that tertiary institutions may be seen as challenging and hostile environments for neurodivergent learners seeking to further their education. Our experiences of learners delaying telling us about their neurodivergence reinforce the findings of van Gorp (2022), who highlights the importance of building whanaungatanga with new learners in order to create a safe space for them to share their learning needs. In addition, the perception of experiencing disability may also change over an individual's lifetime. A longitudinal study of tertiary students with disabilities found that 63 percent who were known to have a disability throughout their school years no longer identified as having a disability on entering tertiary study (Newman et al., 2011).

Whaikaha Ministry of Disabled People (n.d.) states that tertiary education providers should provide disability support to learners. Having a single point of contact via accessibility services to arrange supports and accommodations is recommended in literature on inclusivity for neurodivergent learners (Dwyer et al., 2023). However, disability support services at tertiary institutes in New Zealand are being overwhelmed by the demand for services (Cleland, 2021). Furthermore, some of our neurodivergent learners who would like assessment accommodations are not entitled to these because they do not have a formal diagnosis that qualifies as a learning disability. There are significant barriers to accessing funding for diagnostic assessment of learning conditions as adults (Cleland, 2021). These are systemic issues that impact on our learners.

An ongoing area of work is providing multiple ways for students to demonstrate their learning in assessments, as recommended in UDL guidelines and in research on neurodivergence (Anderson et al., 2018; CAST, 2018). We have redeveloped our healthcare assistant programmes to include different types of assessment modes but more could be done to be truly inclusive. In addition, there are limitations to how flexible we can be for practical assessments due to healthcare industry standards. For example, mask wearing in the OSCE is a requirement despite the sensory issues it causes for some learners.

Our vocational educational system in New Zealand is designed for neurotypical minds. Disabled people continue to experience inequities in educational outcomes such as qualification achievement compared to non-disabled people (Office for Disability Issues, 2022). Neurodiversity is not equally represented across all tertiary education levels and subjects. In post-secondary education, disabled learners are more likely than non-disabled learners to study at sub-degree level instead of degree level (Ministry of Education, 2020). A longitudinal study following

learners with disabilities attending higher educational institutions in America found that most (67 percent) were students with a learning difficulty, and enrolment in health-related programmes was the most common educational pathway for disabled learners (Newman et al., 2011). These research findings may explain our belief that increasing numbers of neurodivergent learners are choosing to study healthcare assistant programmes. With these statistics in mind, we would like our programmes to not only equip graduates to become healthcare assistants but also provide a positive learning experience that may encourage progression to higher level health qualifications.

LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

Our observations and learnings are anecdotal and based on the kaiako perspective only. Formal research on neurodivergence in healthcare assistant programmes across a range of educational contexts in New Zealand is needed. Accurate data on the prevalence and type of neurodivergence among learners in vocational education could be collected. Research should centre the perspective of learners as authorities on their own experiences and learning needs. Research could also examine the positive qualities neurodivergent individuals bring to healthcare assistant roles, as has been found in other research on neurodivergence generally (Godfrey-Harris & Shaw, 2023; van Gorp, 2022), and investigate graduate outcomes.

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