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The authenticity of disability simulations through empathetic imaginings: the perspectives of visually impaired people

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ABSTRACT

In this article, we amplify the voices of visually impaired people to explore the authenticity of simulating visual impairment (VI) as a means of developing empathy among sighted student teachers. Participants were nine visually impaired adults who read vignettes narrating simulation experiences of student teachers in a university setting before being interviewed. Interviews were conducted via telephone, and were recorded, transcribed, and analysed thematically. The discussed themes are: (1) Involving visually impaired people in simulations increases authenticity; (2) Visual impairment is too diverse and complex to be authentically replicated; (3) The suddenness and duration of the simulations are inauthentic; and (4) Removal of blindfolds compromises the authenticity of the experience. Most of our participants were sceptical that VI could ever be authentically simulated because it was too diverse and complex for sighted people to embody. However, given its potential for facilitating the pedagogical learning of student teachers, we propose the involvement of disabled people in the construction and, if possible, delivery of disability simulations and a change of focus relating to the aim, purpose and claims made about disability simulations. Specifically, we encourage a move away from endeavouring to simulate VI in order to live and embody it, towards teacher educators working with visually impaired people and using equipment such as blindfold and VI glasses to facilitate pedagogical learning that may be of value when teaching visually impaired and sighted pupils. In short, we should not claim to “simulate VI” but rather use specialist equipment for pedagogical purposes.

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Introduction

Simulations, considered a keystone of teacher education, aim to “imitate a system, entity, phenomenon, or process” (Lean et al., 2006, p. 228). Research by Carrington et al. (2011) suggests that pedagogical simulations can provide more practice time and support student teachers to apply theory to practice through repeated trials without harming vulnerable pupils. This has been found to be especially pertinent when endeavouring to

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prepare student teachers for teaching disabled pupils (e.g. Maher, 2020; Sparkes et al., 2019). In this respect, disability simulations are an established pedagogical practice, involving nondisabled people using equipment such as wheelchairs, blindfolds, and noise-cancelling ear defenders to cognitively and affectively imagine themselves in the position of a disabled person; to embody the disabled other, typically to facilitate pedagogical learning and development (e.g. Maher et al., 2020). It is here where the connection and interface between disability simulations and the development and utility of empathy is clear.

According to Coplan and Goldie (2011), empathy has been prominent in simulation practice and scholarship as one of the ways in which we endeavour to engage with the mind-bodies of others. Simulation is about what Coplan (2011) terms other-orientated perspective-taking, where a person represents another's points of view and thus attempts to simulate the target individual's experiences as though they were that person. Hence, disability simulations are about nondisabled people, such as nondisabled student teachers, using equipment and performing tasks to embody the disabled other to demonstrate and develop their empathetic imaginings. This imaginative embodiment in teacher education has involved those simulating disability exploring natural and built environments to learn about issues relating to "access" (e.g. Leo & Goodwin, 2016), and by either participating in taught sessions while simulating disability, or teaching a lesson to student peers, some, or all of whom are simulating disability (e.g. Maher et al., 2020). Most of the extant research focuses on the impact of disability simulations on awareness of and attitudes toward disabled people (e.g. Flowers et al., 2007), while others have noted important pedagogical learning that occurred among student teachers during and because of simulated experiences of disability (e.g. Maher et al., 2020). However, research by Sparkes et al. (2019) suggested that disability simulations may unintentionally contribute towards the construction of negative judgements about the mind-bodies of disabled people among nondisabled student teachers. It is because of the significance attributed to the concept of empathy and its connection to disability simulations that we explore visually impaired people's views of sighted student teachers using visual impairment (VI) simulations to develop empathy. To the best of our knowledge, none of the research relating to disability simulations in teacher education focuses on their authenticity and thus the ways and extent to which they may support the development of empathy among student teachers. It is here where the novelty of our research lies.

Conceptualising empathy in teacher education and teaching

According to Singer (2006), empathy refers to the ways and extent to which an individual (e.g. a sighted teacher) can develop knowledge and understanding of the physical and social world from the perspective of an embodied other (e.g. visually impaired pupil). This purview aligns with research by neuroscientists, developmental psychologists, and social psychologists that has explored theory of mind (Baron-Cohen et al., 2013). Theory of mind endeavours to understand and explain how humans, as embodied beings, make attributions about the ideologies, values, inclinations, and behaviours of sentient others. Most of the research relating to theory of mind focuses on its development in preschool children (e.g. Eisenberg & Strayer, 1987; Wellman et al., 2001) through, for instance, social interaction, role play and acting (see Jackson et al., 2006;

Taylor & Carlson, 1997). Interestingly, of the limited research that does explore the benefits of theory of mind for teaching, most focuses on young children teaching their age-peers (e.g. Ziv et al., 2016) rather than teachers teaching pupils generally or disabled pupils specifically. While theory of mind and empathy are undoubtedly bound together, theory of mind is said to involve “understanding” the mental state of the Other, whereas empathy is a social cognitive skill that entails matching the emotional state of the Other, once it is “understood” (Goldstein & Winner, 2012). Both are crucial for everyday interactions, cooperation, and cultural learning. However, this only scratches the surface of what is a complex and often elusive concept.

It follows that empathy has cognitive *and* affective dimensions that intermingle. While an investigation of a sighted teacher’s cognitive empathy would focus on their knowledge and understanding of the ideologies, values and behaviours of visually impaired pupils, affective empathy relates to the extent and ways in which a teacher as a sentient embodied being can “feel” what the pupil feels; that the teacher experiences the same or similar emotions as the pupil in any given context and situation (Cooper, 2011). Coplan (2011) has discussed the emotional dimension of empathy in relation to affective matching, which is said to occur when the observer’s affective states are qualitatively identical with a target’s. Accordingly, a sighted teacher must feel the same emotion as a visually impaired pupil (e.g. frustration) to empathise. Hoffman (2000) and Maibom (2014) offer room for manoeuvre vis-à-vis empathy, suggesting that what is felt (or thought) need only be similar to rather than identical with what is felt by a target. While Coplan (2011) does give some wiggle room to wider conceptualisations of empathy, they distinguish between empathy and reactive emotions. A reactive emotion would involve, for example, a sighted teacher feeling frustration for a visually impaired pupil who does not experience frustration themselves. Reactive emotions, according to Coplan (2011), do not qualify as affective empathy because “they are not sufficiently accurate representations of a target’s situated psychological states. They misrepresent the type of emotion experienced by the target” (Coplan 2011, p. 7). Whether two or more humans can ever experience the same emotions in the same circumstances and situations for the same reasons has mostly been a theoretical question. Indeed, the affective component of empathy has mostly been neglected by empirical researchers, especially in education, which is problematic because it is said to be central to human interaction and relationship building (Singer, 2006). The significance of this is clear when cast against a backdrop of research suggesting that disabled pupils can feel a stronger sense of belonging in schools if they have positive relationships with their teachers and nondisabled peers (Haegle & Maher, 2021). Thus, we argue that there is a need for more theoretically guided and empirically informed research in education relating to the development and display of cognitive and affective empathy to improve teacher-pupil interactions and relationships.

Much of the – albeit limited – research relating to the development and embodiment of empathy during teacher education centres multi- and cross-culturalism where the focus is on sensitising teachers to issues associated with cultural diversity among pupils (Cruz & Patterson, 2009). This is tied to a body of research about the connection between teacher empathy and the development of culturally responsive pedagogy developed through teacher education (Warren, 2017) where there is a core focus on fostering an active commitment to social justice, anti-oppressive and antiracist teaching (see Diez,

2007; Villegas, 2007). Broomhead (2013) is one of few scholars who has explored the empathy of student teachers in relation to disabled pupils. Here, data were gathered from the parents of disabled pupils, who questioned whether teachers could empathise with them or their children because they were not disabled and did not have disabled children. This purview suggests that empathy is developed through lived and embodied experience either directly (being disabled) or because of physical, social, and emotional proximity (being a parent of a disabled child). Other research argues that pupil perceptions of the empathy displayed by teachers impacts positively on academic motivation and achievement (Branwhite, 1988) and the development of empathy as an important psychosocial skill in the pupils themselves (Hoffman, 2000).

According to Jaber et al. (2018), teacher education can be an ideal context to shape student teachers' cultivation of empathy. Such significance has been attributed to teachers being able to understand, develop and display their empathetic capacities regardless of the places and spaces they find themselves teaching, whether that be mainstream or special school. Empathy is considered by many as an essential teacher disposition, one that ought to be encouraged and developed within teacher education for the well-being of children and of the wider society (see Rice et al., 2017; Warren, 2014). Cooper (2011) places so much emphasis on the importance of empathy that they call for teacher educators to actively seek prospective teachers that have strong empathetic capacities and can develop this in their pupils. There is also research suggesting that mainstream school teachers who demonstrate a high degree of empathy have more positive attitudes towards disabled pupils (Morley et al., 2005). This aligns with Cooper's (2011) claim that higher degrees of empathy are needed when working with pupils who have diverse learning and support needs, such as disabled pupils, because it can help teachers to be accepting and understanding of difference.

Bialystok and Kukar (2017) argue that empathy and, for that matter, authenticity, are both nebulous virtues that teachers are called to embody with little reflection on how they are developed, taught, and modelled. Thus, Maher and Morley (2020) sought to understand the development and display of empathy in special schools by exploring the influence of a special school placement as a professional development tool on student teachers' self-perceptions of empathy. Accordingly, most student teachers felt that they could empathise with disabled pupils, that the placement enabled them to reflect on the ways their empathy influenced their teaching now and could continue to do so in the future, and that it was important that teachers demonstrated empathy (Maher & Morley, 2020). It seems that the utility of teacher empathy development and display is not tied to either mainstream or special school contexts, and thus may be useful in both, although more research is required to explore the influence of material and social spaces on the development and utility of cognitive and affective empathy. Like most research relating to empathy though, the views of the recipients of empathetic imaginings were absent from this research. Thus, our research centred the experiences and amplified the voices of visually impaired people to explore the authenticity of simulating VI as a means of developing empathy among sighted student teachers. The primary research question guiding this study, which connects the research that we have done separately and together relating to teacher education, teaching and empathy, the pedagogy of disability simulations, and teaching visually impaired young people, was *How do visually impaired people feel about the authenticity of simulating VI as a tool for developing empathy among sighted student teachers?*

Methodology

Researcher positionality

Our research was social constructivist in nature in that we subscribed to the view that material and biological entities exist beyond our participants and ourselves. However, these entities, as subjects and objects, are not simply present in unmediated forms. Instead, subjects and objects in education and schools, for instance, are given meaning by people as they actively construct their social worlds that have consequences for self and others. Thus, while VI may be brought about due to changes to, in and through the biological body, just how meaning is constructed and stories told about these changes is tied to how the person is positioned in society and the cultural narratives available to them about VI (Whitburn & Michalko, 2020). The emphasis for us, therefore, is on VI as a socially constructed category and how it is given meaning by visually impaired people throughout the life course as they interact with others who are part of their relational networks.

In terms of our own embodiment, we are white, heterosexual, cisgender men. Neither of us currently self-identify as disabled. Furthermore, even though both of us require glasses to go about our daily lives, neither of us are visually impaired as defined by UK National Health Service (2018) criteria. Accordingly, we consider ourselves as outsider researchers when it comes to embodied knowledge and experience of VI. Hence, we followed the guidance offered by Callus (2019) about nondisabled people researching disability. Throughout the entire research process, we self-reflexively considered the ways and extent to which our positionality, embodied experiences, and our associated beliefs about VI may have shaped our methodological decisions, interactions with participants, and analysis of the data.

Our work is located within a critical disability studies framework (Goodley, 2011) and underpinned by the principle of “nothing about us without us” (Charlton, 2000). Hence, it was crucial that visually impaired people were central to our research. Specially, we were committed to listening and learning across difference regarding attempts to simulate VI because of the systematic ways in which the stories of disabled people have previously not been listened to, not heard, and not heeded (Goggin, 2009). This is part of our wider attempt to empower and emancipate our participants by encouraging and supporting them to take an active, rather than passive, role in research and practice (Callus, 2019).

Participants

Participants were recruited from a cohort of visually impaired adults in the US whom Justin had a prior relationship with. University ethical approval was gained prior to the research commencing. An email invitation, which included the purpose, time commitment, and eligibility criteria for the study was sent to prospective participants by Justin. Those who expressed an interest were then invited to complete telephone interviews. Nine participants (aged 21–34 years; seven women, two men) agreed to do so. Each participant experienced a congenital VI ranging from complete blindness to low vision. This range of impairment enabled us to construct a rich tapestry of knowledge about people who have a variety of embodied experiences with VI. Table 1 provides

additional demographic information about each participant. Pseudonyms are used throughout this article to protect the identities of people, organisations, and places.

Data collection

Justin sent the participants two vignettes to read at their leisure. These vignettes have been published elsewhere (for full text see, Maher et al., 2020) and were constructed from the reflective diaries of nondisabled, sighted, teacher educators in the UK who had used blindfolds and specialist glasses to simulate VI among nondisabled, sighted, student teachers for pedagogical purposes (Maher et al., 2020). Vignettes included the stories of the student teachers as they performed two roles during the simulations: (1) they taught learning activities to others simulating VI, and (2) they experienced being taught while simulating VI.

A semi-structured interview was conducted by Justin with each participant who was invited to share their views of what they had read in the vignettes about how teacher educators constructed and utilised simulations as instructional tools. Questions ranged from asking participants to generally describe their views on the vignettes (e.g. What are your thoughts about the story you read?) to those asking about their views on specific elements of the story (e.g. What are your thoughts about student teachers removing blindfolds when they felt “scared” and/or “uncertain”?). Additionally, participants were asked to share their views on the ways and extent to which the emotions displayed and discussed in the vignettes matched their own in similar situations, and about the authenticity of the simulated experiences described in the vignettes. Sample questions include: (1) To what extent can sighted people know what it is like to have a visual impairment through the use of blindfolds? (2) To what extent can sighted people know what it is like to have a visual impairment through the use of simulation glasses? (3) What else, if anything, could be done to help sighted people know what it is like to have a visual impairment?, and (4) How, if at all, should these simulations be used to better prepare teachers for teaching visually impaired pupils? Telephone interviews were used that lasted between 45 and 86 min. The interviews were digitally recorded and transcribed verbatim.

Table 1. Participant demographic information.

Name	Sex	Age	Race/ Ethnicity	Description of VI
Beth	Female	33	Caucasian	Complete blindness
Catherine	Female	25	Caucasian	Complete blindness
Danielle	Female	28	Caucasian	Complete blindness
Jane	Female	26	Asian American	Low vision with a 20/200 visual acuity indoors, nearly complete blindness in sunlight.
Laura	Female	34	Caucasian	Low vision in one eye with 20/200–20/400 visual acuity. Complete blindness in the other eye.
Saaid	Male	21	Asian American	Complete blindness in one eye, some usable vision in the other eye.
Stephanie	Female	30	Caucasian	Complete blindness
Tina	Female	34	Caucasian	Low vision with a reduced field of vision.
Toby	Male	25	Caucasian	Low vision with 20/150–20/400 visual acuity caused by macular hypoplasia.

Note. Participants were asked to identify sex and race/ethnicity using an open-ended question. Complete blindness is the complete lack of light and form perception. Low vision refers to uncorrectable vision loss that interferes with daily activities. All impairments were reported to be congenital.

Data analysis

Interview data were subjected to thematic analysis by Anthony. This was inspired by the guidance offered by Braun et al. (2018) and was used to construct patterns of meaning across our qualitative dataset. Accordingly, Anthony read the interview transcripts and listened to the audio recordings until they felt intimately connected to the views and experiences of participants. Then, Anthony went through the transcripts and labelled chunks of text that were deemed relevant to the focus of the research. Labels were descriptive (what was said), analytical (the significance and implications of what was said), and conceptual (the relationship between what was said and empathy). For example: (1) participants said that visually impaired people should help with the construction of simulated experiences (descriptive); (2) research suggests that visually impaired people are disability experts because they have lived, embodied experiences of VI (analytical); and (3) research suggests that sighted teachers need to experience interacting with visually impaired people to develop their empathetic imaginings (conceptual). Anthony then constructed the first iteration of key themes that various labels clustered around in terms of similarity and being a central organising concept in explaining how the participants perceived the possibilities and problems of simulating VI. Next, this thematic analysis along with the interview transcripts were sent to Justin as part of a process of peer debriefing that involved them reviewing the transcripts in relation to the key themes identified by Anthony and the data used to support these. Justin also added their own reflective notes to the themes. Following this, Anthony and Justin had two Microsoft Teams discussions to reflect upon the process. This supported Anthony to reflexively consider the analytical decisions made, which enhanced the quality of the study in relation to the goodness criteria advocated by Richardson and Adams St Pierre (2017).

These analytical steps described above resulted in the construction of the following themes: Involving visually impaired people in simulations increases authenticity; Visual impairment is too diverse and complex to be authentically replicated; The suddenness and duration of the simulations are inauthentic; Removal of blindfolds compromises the authenticity of the experience. In presenting these themes below we provide multiple and detailed quotations from the participants in our study. This strategy meets the authenticity criteria of “fairness” articulated by Guba et al. (2017) that requires participant views, perspectives and voices to be apparent in the text. Likewise, this strategy also provides the “polyvocality” and “thick description” required by Tracy (2010) to enhance the credibility of our findings.

Findings

Involving visually impaired people in simulations increases authenticity

According to the participants, the authenticity of the simulations was compromised because visually impaired people themselves were not involved in their construction and delivery. For example, Beth noted:

I thought they [teacher educators in vignettes] were really trying but they should've spoken with either a visually impaired student or someone actually experiencing vision loss when they were planning instead of just trying to simulate.

Similarly, it was suggested that visually impaired people should be involved in the delivery of simulations to increase their authenticity:

I think that real people with vision loss should be used to make it more real. Maybe have students [with VI] volunteer to help. I think the simulations should include real people with the condition that you're trying to teach. (Stephanie)

For Tina, it was important that the focus was on doing simulations *with* rather than *about* visually impaired people:

Blind people need to be involved [in the simulation]. So, not doing it about blind people but doing it with them. That will make it more realistic but also more inclusive.

Tina continued by suggesting that a buddy system was one way that visually impaired people could support the delivery of simulations:

I think it's often helpful to use a buddy who's blind. If there's somebody who's blind that could be part of it, that can often help inform it and keep it a little more realistic. That's something we often do in social work and it works really well.

Many participants suggested that the simulations were inauthentic because they focused on a very specific context and set of circumstances that were not connected to the wider lives of visually impaired people. According to Jane, the presence of a visually impaired person would help to connect simulated experiences to their wider lives:

If I'm being exposed to someone that lives with it [VI] every day ... So not just doing the simulation yourself but also working alongside someone that deals with it ... that could maybe help you understand it even more and connect the experience to other parts of life. That would make it more real.

Visual impairment is too diverse and complex to be authentically replicated

Many participants suggested that VI could not be authentically simulated because it was too diverse and complex. For instance, Stephanie argued:

Visual impairment is complicated. Everyone's eyes are different. Every person's view on their visual impairment is different. No one experiences it the same. Even if you have 10 kids that have the exact same eye condition, no two are going to be exactly the same. It's kind of like a snowflake. They're all cut out differently. You can't replicate that.

Saaid was critical of the use of blindfolds, specifically, because that related solely to experiencing complete blindness. In the vignettes, he read about and supported student teachers using specialist glasses to simulate different types of VI:

I think we can simulate various visual impairments. So, if different lenses on the glasses help make that happen, I think we should go for it. Because right now what I hear is, "Well, let's just blindfold everybody" but that's just simulating pitch-black or in a way total blindness and most people with VI are not completely blind.

There were notable concerns expressed by Danielle about the authenticity of using specialist simulation glasses because, again, VI was said to be too complex and difficult to simulate authentically:

I have never seen those glasses. I mean, I get the idea they're trying to simulate certain levels of blindness, but VI comes in so many ways. It is on a continuum and it's impossible to demonstrate all of them. And why would you want to do that? I don't see the value.

Interestingly, Toby mentioned that because simulation glasses rest on the face rather than being more tightly and securely positioned, sighted students could look under and over the rim of the glasses, which again could compromise the authenticity of the experience:

There are simulation goggles that cover everything but they [student teachers] were using glasses which made them less realistic because you can look under and over the glasses, which is what the students did and that was probably not what they should be doing.

Stephanie suggested that simulation glasses are even less authentic than the use of blindfolds, and that it is more difficult to replicate specific types of VI than it is complete blindness using blindfolds:

I think the glasses are less accurate. When you're using the glasses, it might not be the exact thing. It might be the same type of VI, but there will be slight differences to them. The eye doctors tell us about these eye diseases, and they are very different.

Further concerns were expressed by Laura that simulation glasses are too specific to one type of VI and thus prepare student teachers even less than blindfolds do for working with visually impaired pupils:

Most people who are totally blind have some light perception so taking away someone's vision completely, temporarily, could give them a better idea of VI than wearing those glasses. If a student were to not be totally blind, but have some light perception, at least that can be understood by, well I can still see some light and or some shadows. I think that people can gauge a better level of understanding based on having nothing [completely blind]. And then, you know, the people who truly do have nothing [completely blind] really get that authentic experience.

Danielle was especially concerned that some student teachers may claim that they now know more about VI than they do because they used specialist glasses to simulate a wider range of VI.

I don't like the idea of glasses because they can give misleading ideas. You know, they can set different expectations for certain people. "Oh yeah, I wore glasses. I know how you [a visually impaired person] can see." No, you don't. You cannot see how exactly my vision works or doesn't.

The suddenness and duration of the simulations are inauthentic

A key criticism of the simulations and something that compromised their authenticity was that student teachers' experiences of complete blindness using blindfolds were too sudden. For instance, Beth said:

Basically, it's [simulated blindness] so sudden. It's not a valid way of doing it. It's not realistic because people don't lose their sight like that.

Similarly, Toby argued:

That's not a valid way to go about it [simulating VI] because that person is probably very anxious because they just lost a sense that they rely very heavily on. It happens too quickly which is not accurate.

As Toby pointed out, the simulations were inauthentic because it is extremely rare for someone to immediately experience complete blindness:

They [teacher educators] took a lot of people [student teachers] that were quote unquote newly blind and tried to get data on how people with visual impairments act. I don't think that there was a realization that making them immediately completely blind wasn't realistic because it very rarely happens.

As part of her criticism of the suddenness of the simulated blindness, Danielle discussed the negative emotions student teachers experienced and that she read about in the vignettes:

You put it on [a blindfold] for a couple hours and you totally freak out when you're in the dark. You don't know how to do things. You have no training. You have no adjustment time. No, that's wrong. People [student teachers] were saying "oh, I'm scared, oh, I feel useless". Yeah, that's exactly how you're going to feel but I don't feel like that.

According to Laura, there was an obvious need to ease student teachers into the simulations, rather than experiencing sudden sight loss, as this would help them to manage the negative emotions they experienced during simulations:

They [teacher educators] need to allay those fears of the students. You know, ease the students in. Perhaps more instruction with the students' consent, some textile learning methods, to help the students until they become more familiar with the activity. That will help them to be less apprehensive and not be scared.

Interestingly, Toby suggested that the simulated experiences were inauthentic because the sighted participants, who experienced simulated blindness very suddenly, already had a visual memory to work from:

Sighted people have a visual memory which means that all the actions that they are being asked to do, they can see in their mind before they do it. So, if they say "put your arms out and make a T", they know what a T looks like. They see that image in their mind and then they do it. Whereas people with visual impairments that have congenital blindness don't have a visual memory. They don't know what a T looks like because they read Braille and they don't know what someone putting their arms out in that shape would look like so there's a lot of flaws in what they're trying to do in the simulations.

Participants were also critical about the duration of the simulations, suggesting that they were far too short to authentically replicate living with VI. Danielle, for instance, said:

I'm saying not to do it [simulate VI] for just a certain period of time. They did it for a very short period. There's nothing to show them the entire experience of living with visual impairment. So, of course, they felt scared because vision is a sense that people rely on the most. The world is visually oriented, whether we like it or not.

Stephanie suggested that sighted people needed to simulate VI in different contexts and situations, for much longer, for the experience to be more authentic:

You need to wear the blindfold for a longer time. You know, I think that if people were to wear the blindfolds constantly for a month, then they'd have quite a bit better of a perspective of what it would be like. You need to travel to different places and do different tasks. You know, all the things that you do in everyday life.

When it came to duration of simulation, Stephanie was sceptical that sighted people would not honour a commitment to a longer simulation, saying that they could and probably would remove their blindfolds:

There needs to be a kind of honour system because, “Oh, did you take it off?” or “Did you take them off?” “Did you look over or under them or around them?” I think it is something that would require constant supervision because I think a lot of people would be scared and kind of like, “Oh God, I have to take this off. I can’t do this.” But I think that if they really wore them for a longer time, they’d have a little more of a know-how about what it’s like to be blind.

Removal of blindfolds compromises the authenticity of the experience

Most participants suggested that simulations were inauthentic because sighted people could remove blindfolds at the end of the session, whereas visually impaired people could not remove their VI when and indeed if they wanted to. For instance, Beth suggested:

Yeah, they [simulations] are controversial because they’re used with good intentions, but they don’t give people the real picture of what it’s like to be blind. They can take off the blindfold or the glasses and go right back to normal but I can’t do that.

Participants expressed concerns when they read in the vignettes about student teachers removing blindfolds during the sessions, especially when they experienced fear or trepidation. Again, there was mention of the need for visually impaired people to be present during the simulations, this time to talk to student teachers about the emotions they experienced during the simulations as a way of reducing the likelihood that blindfolds would be removed. For example, Beth argued:

Taking off the blindfold is an easy way out. I don’t think that’s right and I get why they do it but it defeats the purpose of what they’re trying to do. I feel like it’s [removing blindfold when feeling fearful] a natural human instinct but something needs to be done about it to make it more real. They just need to take those few days to talk to people with vision loss and then maybe expressing their fears. Why do you feel like this? What scares you the most? How can we help to diminish those fears?

While Jane understood why sighted people may remove their blindfolds, especially given the suddenness of the simulated experience, she argued that it again compromised the authenticity of the simulation:

I think that’s understandable and that’s kind of expected. If you haven’t lived your whole life with the impairment then and you have the ability to just kind of get rid of it for a second. I think that that’s understandable. But, of course, in real life people that go through that don’t have that option.

There was mention again, this time by Stephanie, of sighted people having visual memory reference points that visually impaired people do not, and that the removal of the blindfold during an activity replenished that reference point and thus impacted negatively on the authenticity of the simulation:

When you are blind, you don’t have that choice [to remove VI]. Even if they have a blindfold on where they can’t see anything at all, it’s a great simulation, but it may not be exactly how it

is because those who are blindfolded that can see have that visual reference. When they peek, they see it all again so have another visual reference. I don't have that visual reference because I was born blind. I've been blind all 30 years of my life so it's very different. Even if a person is blindfolded to try to simulate total blindness, it's more of the same thing as, "Oh crud, I went blind, but I still have that visual reference."

Several of the participants suggested that the person facilitating the simulations needed to do more to encourage, even prevent, student teachers from removing blindfolds during the simulation. For example, Catherine said:

The only critical thought I would have is that I don't think that they should've been allowed to remove their glasses or blindfold at any time to see. I think that they should have been made to keep them on at all times. Blind individuals can't do that. We can't remove blindfolds or glasses. So, I don't think that they should have gotten that chance. I mean, I understand that they're scared, but you know, it's more about learning empathy and being in our shoes.

Interestingly, Jane mentioned what she perceived as a positive of sighted student teachers lifting blindfolds. She said that it allowed them to compare complete blindness to sightedness so they could contrast experiences.

I think it probably helps to see, to lift the blindfold or glasses because it immediately shows you how different it is when you can see better. And maybe, in a way, it could be a good thing that they [student teachers] did that because they can kind of right away notice how different they feel when they can see like they normally do. They can compare the two.

Discussion

According to participants, the authenticity of simulations can be compromised for a variety of reasons, including the absence of involvement of visually impaired people during their construction and delivery. While simulation is used to cognitively transport oneself into the position of another (Coplan, 2011), visually impaired people have what Macintyre Latta and Buck (2008) refer to as lived and embodied knowledge of VI, something that sighted teacher educators and student teachers do not. Thus, our participants assume, knowingly or not, that empathy is more likely to increase through emotional contagion if the embodied other is present during simulated experiences. Hatfield (2009) defines emotional contagion as the tendency to mimic and synchronise expressions, vocalisations, postures, and movements with those of another person, and, consequently, to converge emotionally. Interestingly, this finding aligns with the views of disabled adults in research by Leo and Goodwin (2016), who suggested that they were "used" as pedagogical tools because they were involved in the delivery of disability simulations, but not their construction.

For us, it is crucial that visually impaired people are at the centre of the construction of simulated experiences because it may increase their authenticity and, more importantly, it is ethically and morally the right thing to do (Maher et al., 2021). This purview aligns with Tina's suggestion that the focus should be on doing simulations *with* rather than *about* visually impaired people, which ties to the nothing about us without us mantra championed by the disabled people movement (Charlton, 2000). In this respect, it is crucial that teacher educators and others involved in the construction and delivery of such simulations be cognizant about the power differential between visually impaired and sighted

people in an ocularcentric world. Here, there are ethical issues and consequences of sighted people constructing simulations through what Campbell (2009) termed an ableist lens and claiming to be able to represent and thus cognitively imagine and understand the thoughts, feelings, inclinations, propositions, and experiences of visually impaired embodied entities.

Many participants suggested that VI could not be authentically simulated because it was too diverse and complex. There was specific mention of every person's eyes being different even if they are considered in the same category of VI. The key concern here is that visually impaired people, as sentient beings, are not a homogenous group when it comes to eye biology. Thus, even if we put to one side the social and material character of the body (Satina & Hultgren, 2001) and focus on it as a bio-medical entity only, notable differences in visual acuity and field of vision, which can change at different times of the day, mean that VI for all people at all times cannot ever be authentically replicated. In support, Smith (2008) offers: "the body is bio-social, and this body one has, is and experiences places constraints on our capacities to imagine ourselves otherwise or to imagine ourselves being another person" (Smith, 2008, p. 146).

Attention was also drawn to the fact that blindfolding student teachers, which is arguably the most used form of VI simulation (Maher et al., 2021), attempts to simulate a type of VI that affects only a small proportion of visually impaired people and thus may neglect many of the visually impaired pupils who student teachers are more likely to teach in the future. While the use of VI glasses was identified as one possible solution to this concern, to bridge the empathetic and embodied chasms between sighted and visually impaired people, there were notable concerns expressed by Danielle in particular about the authenticity of using specialist simulation glasses because, again, VI was said to be too complex and difficult to simulate authentically. It was also mentioned that because simulation glasses are worn on the face rather than simulation goggles that are more tightly and securely positioned, sighted students could look under and over the rim of the glasses. Again, this was said to compromise the authenticity of the experience by, according to Cooper (2011), disrupting empathetic attempts of sighted student teachers to embody VI. One participant was especially concerned that some student teachers may claim that they now know more about VI than they actually do because they used specialist glasses to simulate a wider range of VI. In this regard, Coplan and Goldie (2011) caution against assuming that we understand the intersubjective experiences of others because it can lead to a type of pseudo-empathy since people often mistakenly believe that it provides them with access to the other's point of view when it does not. More broadly, there is a real concern when it comes to simulation, which has also been expressed elsewhere (e.g. Maher et al., 2021; Sparkes et al., 2019), that simulating disability may result in non-disabled people finalising (Bakhtin, 1984) disabled people by claiming to know what they think and how they feel, as sentient beings and embodied entities, in myriad contexts and situations.

Another key criticism of the simulations and something that was said to compromise their authenticity was that student teachers' experience of complete blindness was too sudden. In other words, the use of blindfolds, if anything, may have (or not) authentically replicated a specific moment in time if someone suddenly became completely blind, but did not authentically replicate losing some or all sight over a longer period, which was much more likely to happen. As our participants pointed out, this was inauthentic

because it is extremely rare for someone to immediately experience complete blindness. Easing sighted people into blindness, it was said, would make the experience more authentic and help sighted people to manage and authentically thus empathetically match the emotions of visually impaired others during simulations. Whether this would happen or not is difficult to say. Smith (2008) expressed reservations, stating:

one difficulty of truly imagining another's life as a disabled person is that it requires us to know and predict what he or she would think and feel and do in the myriad situations he or she might encounter, and to reproduce and anticipate their emotional responses as the imaginative process unfolds. (Smith, 2008, p. 152)

An important part of claims to authentically simulate VI is that, according to Coplan (2011), emotions need to match. This was not the case for the student teachers, many of whom experienced apprehension and fear during simulation experiences, which was more aligned with the emotional framework of ableism (Hughes, 2020) and indicative of sympathy rather than the empathy necessary to claim authenticity.

Most participants suggested that simulations were inauthentic because sighted people could remove blindfolds at the end of the session, whereas visually impaired people could not remove their VI when and indeed if they wanted to. Participants were most critical about reading in the vignettes that student teachers removed blindfold during the sessions, especially when they experienced fear or trepidation. Again, this disrupted attempts to replicate the cognitive and affective states of embodied others (Cooper, 2011) and replenished visual reference points. While some participants understood why sighted people may do this, especially given the suddenness of the simulated experience, all argued that it compromised the authenticity of the simulation. Several of the participants suggested that the person facilitating the simulations needed to do more to encourage, even prevent, student teachers from removing blindfold during the simulation. While this suggestion is understandable, and may go some way to supporting sighted student teachers to embody the visually impaired other, there are notable ethical issues with expecting sighted people to continue wearing blindfolds when they are experiencing discomfort or distress (Maher et al., 2021). Teacher educators have a duty of care to their students. Interestingly, one participant mentioned a positive of lifting the blindfold in that it allowed students to compare complete blindness to sightedness. Thus, rather than the focus being on using simulations to cognitively and affectively experience the embodiment of the other, value here related to attempting to compare the embodiment of sightedness and blindness in order to learn and understand. This approach may ensure that there is a clear sense of self-other differentiation, which for Coplan (2011) is a crucial aspect of simulation.

Concluding thoughts

In conclusion, it would be remiss of us to ignore that most of our participants were sceptical that VI could ever be authentically simulated. In this regard, it is noteworthy that as human beings there is a tendency to assume greater similarity between self and other than typically exists (Coplan, 2011), even if the embodied experiences of that target other, such as visually impaired people, are very different from our own. According to Smith (2008), the barriers to empathetic imagination – that is, positioning ourselves in the shoes of the

other through simulation – starts and ends with the body and embodiment. Visual impairment and sightedness are experienced in, on and through the body. The body as a bio-social entity is the very basis of experience for sighted and visually impaired people (Hughes & Paterson, 1997). Therefore, the body places constraints on the capacity of sighted people to empathetically imagine themselves as a visually impaired person through simulation because they have not lived and embodied it.

For us, it is time for teacher educators to begin to think more critically about the messages they are communicating to future teachers through the adoption and implementation of simulation activities. Proponents of these activities appear to suggest that there is, indeed, research suggesting that disability simulations can facilitate important pedagogical learning and sensitise student teachers to some of the challenges disabled young people experience in school (e.g. Maher et al., 2021; Sparkes et al., 2019). However, it is clear, based on the opinions shared by our participants and disabled persons elsewhere (e.g. Leo & Goodwin, 2016), that there are serious limitations, including the potential to contribute to unintended harm and a sense of false confidence, with teaching future teachers about VI using simulations. Most critical here may be for teacher educators to rethink the aim, purpose and claims made about disability simulations. Our participants were clear, and we agree, that a move away from endeavouring to simulate VI in order to live and embody it is needed. That is, if we continue to adopt simulations as a teacher education tool, we should not claim to “simulate VI” but rather, and at most, use specialist equipment for pedagogical purposes. This change of purview should be coupled with the direct involvement of visually impaired individuals to dispel any myths about VI, as well as the development of a social model worldview among student teachers during their teacher education, where the focus is on the environmental, structural and attitudinal factors that “disable” pupils (Oliver, 2013).

It should be remembered that pre- and in-service teachers are confronted by myriad expectations related to their acquisition of personal and professional knowledge and attributes to enable them to teach effective lessons and improve the learning of all pupils. While empathy is considered by many as an essential teacher disposition that ought to be encouraged and developed within teacher education (see Rice et al., 2017; Warren, 2014), there is a need for future research to explore how, if at all, empathy can be developed, taught, and modelled during teacher education, particularly when working with disabled young people. From our findings, it seems obvious that disability simulations are not the answer.

We end this article by reflecting on some of the notable limitations – or indeed limits – of this research to support others with their future research endeavours and to stimulate dialogue. First, we had concerns – and, indeed, have done so throughout our entire academic careers – about how our own embodiment as nondisabled, white men, who have never embodied disability generally or VI specifically, formed the lens through which we constructed meaning about and made sense of the views and experiences of our participants. While we endeavoured to reflexively engage with our positionalities throughout the entire research process, our ableist views and experiences inevitably spilled into it. For example, our use of the term “lens” is ocularcentric and thus ableist. Second, given that the identity markers of all humans intersect when shaping embodied experiences, a more diverse sample of participants in relation to gender, race, sexuality, and socio-economic status may have enabled us to gather a richer tapestry of knowledge about

embodied views and experiences of empathy and VI simulations. Finally, but by no means lastly, telephone interviews certainly impacted negatively on the richness of the data generated. Humans are embodied beings. Therefore, for us, telephone and online forms of data capture cannot and should not replace the more dynamic and interactive forms of embodied, in-person, data generation. Saying that, they did enable us to access participants during the physical distancing measures that were in place because of COVID-19.

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